NIH HANDHELD TECHNOLOGY 2011 EXPO

A showcase of handheld technology in use at NIH

Sponsored by the NIH Handheld Users Group (HUG) in cooperation with CIT and the NIH Library

"Building Mobile-Friendly Web Sites Using Microsoft SharePoint"

Developer Track

Wednesday, April 13, 2011 | 10:00AM - 11:25AM EST

HUG CIT NIH LIBRARY

EPC GROUP.NET Enterprise Innovation

About EPC Group

SharePoint 2007 and SharePoint 2010 Offerings Include:

- Enterprise Content Management Systems based on Microsoft Office SharePoint Server 2007 (MOSS)
- SharePoint 2010 (SharePoint Server 2010 \ SharePoint Foundation 2010)
- Intranet and Internet facing implementations (WSS or MOSS)
- Health Check and Assessment Initiatives – Preparing for SharePoint 2010
- SharePoint Support Contracts for Organizations throughout the U.S.
- Custom Application, Web Part, Security Models and Workflow Development
- Migration initiatives for SharePoint 2007 to 2010
- KPI, Dashboard, and Reporting Solutions
- Tailored SharePoint Training (either onsite or remote)
- SharePoint Roadmap development: 6, 12, 18, and 24 months
- Enterprise Metadata Design \ Retention Schedule Development
- Webpartgallery.com

Presenter: Errin O'Connor

- Founder & CEO of EPC Group.net
  - One of the nation's leading SharePoint implementation and custom .NET development firms
- Author with the EPC Group team: *Microsoft SharePoint Foundation 2010 – Inside Out*
- Author of *Windows SharePoint Services 3.0 Inside & Out* by Microsoft Press
- Has completed 130+ SharePoint Implementations in the Past 10 years
- Has worked on some of the largest SharePoint deployments to date (200,000+ Users)

webpartgallery.com

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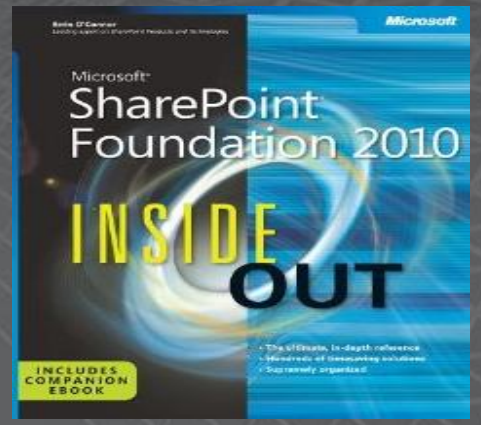

SharePoint 2010 Communities Platform

- Team Sites
- Tag Profile Pages
- Office Client Backstage, Co-authoring
- Mobile Access
- SharePoint Workspace Offline access
- Outlook Synch
- External Access

- Blogs & Wikis
- Enterprise Wikis
- Rich Media Support
- Team Sites
- Ratings
- Office Web Apps
- Note Board

Microsoft® SharePoint® 2010

- Social Bookmarks
- Ask Me About, Colleague & Expertise Suggestions
- People & Expertise Search
- Organization Browser
- Social & Taxonomy Tags

- My Network, My Profile
- Activity Feeds
- Status Updates
- Photos, Contact Card, Presence everywhere
- Notifications & Alerts

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Why Mobile & SharePoint 2010?

- **What is Your SharePoint User Base?**
  - Customers are changing – demographics, technology use, etc.
  - Users are coming to expect 24/7 connectivity

- **How Best Can the Institute Adapt to Growing Mobile Adoption**
  - Reviewing the Institutes current applications as well as the future application development process
  - Faster Connections and expectations of mobility from your user base

- **Mobile Adoption Continues to Move Forward | Update SharePoint Roadmap**
  - Smartphones are continuing to improve and they provide the technologies that bridge the gap to traditional applications and sites

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Keys to SharePoint Mobile Success

What is Your SharePoint User Baser?

- What devices are your customers using?

Understand mobile Information Architecture

- Utilize the available device features and screen real estate to drive focus towards mobile content

What is the Institutes Mobile Strategy

- These factors will help you understand when to develop native or web-focused mobile applications and how to best serve your customers

Understanding and Evolving

- Understanding the Institutes users and how technology is evolving to get on the front side of the mobile application curve

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SharePoint 2010 Mobile

SharePoint 2010 Supports the Delivery of Information to Web Browser Enabled Mobile Phones:

- Lightweight interface and navigation
- Document libraries, lists, wikis, blogs, web part pages and LOB data
- Office Viewer
- Word, Excel and PowerPoint documents
- Mobile My Site
- Mobile Search Experience
  - People, contact information, content and finding data in custom databases
- SMS Alerts for changes to content
- Features are customizable and, all the information is in SharePoint's SDK.

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Available SharePoint 2010 Web Services

SharePoint provides a full suite of web services for native apps

- Document Workspace Services (WebSvcDWS)
- Forms Services (WebSvcForms)
- Authentication Services (WebSvcAuthentication)
- Business Data Connectivity Services – BDC (WebSvcBdcAdminService)
- Search Services (WebSvcspsearch)

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SharePoint 2010 Supported Browsers

SharePoint also supports a wide variety of mobile browsers, which includes:

- IE Mobile on Windows Mobile 5/6 and newer versions
- Safari4 and newer versions on the iPhone and iPad
- BlackBerry 4.x and newer versions
- Nokia S60
- NetFront 3.4, 3.5 and newer versions
- Opera Mobile 8.65 and newer versions
- Openwave 6.2, 7.0 and newer versions

SharePoint mobile device compatibilities out-of-the-box include web part pages, document and picture libraries, lists, blogs, wikis, office documents, search, and My Site. In order for SharePoint to be accessible outside the corporate firewall, however, IT administrators must publish SharePoint via an SSL VPN gateway, use a mobile proxy, or expose SharePoint server to internet directly.

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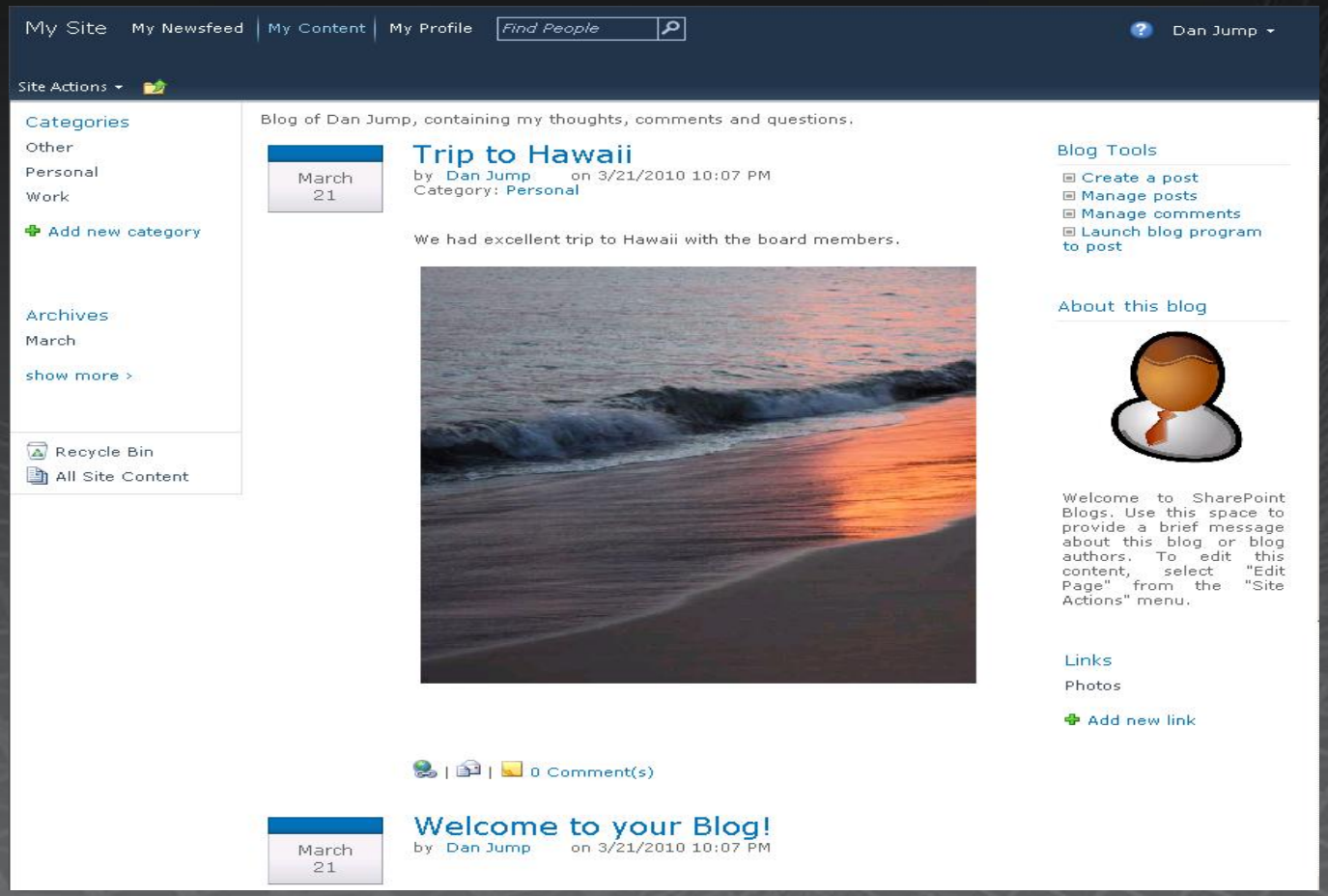
Blogs and Wikis

- Easy page editing
- Wiki-linking with auto-complete
- Cross-browser Rich Text Editor



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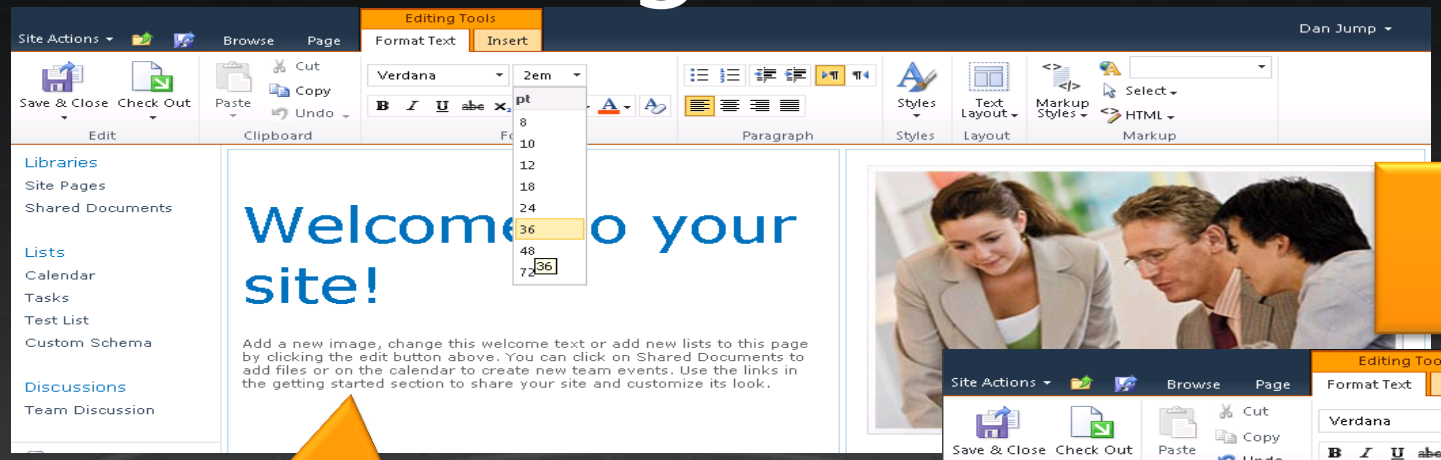
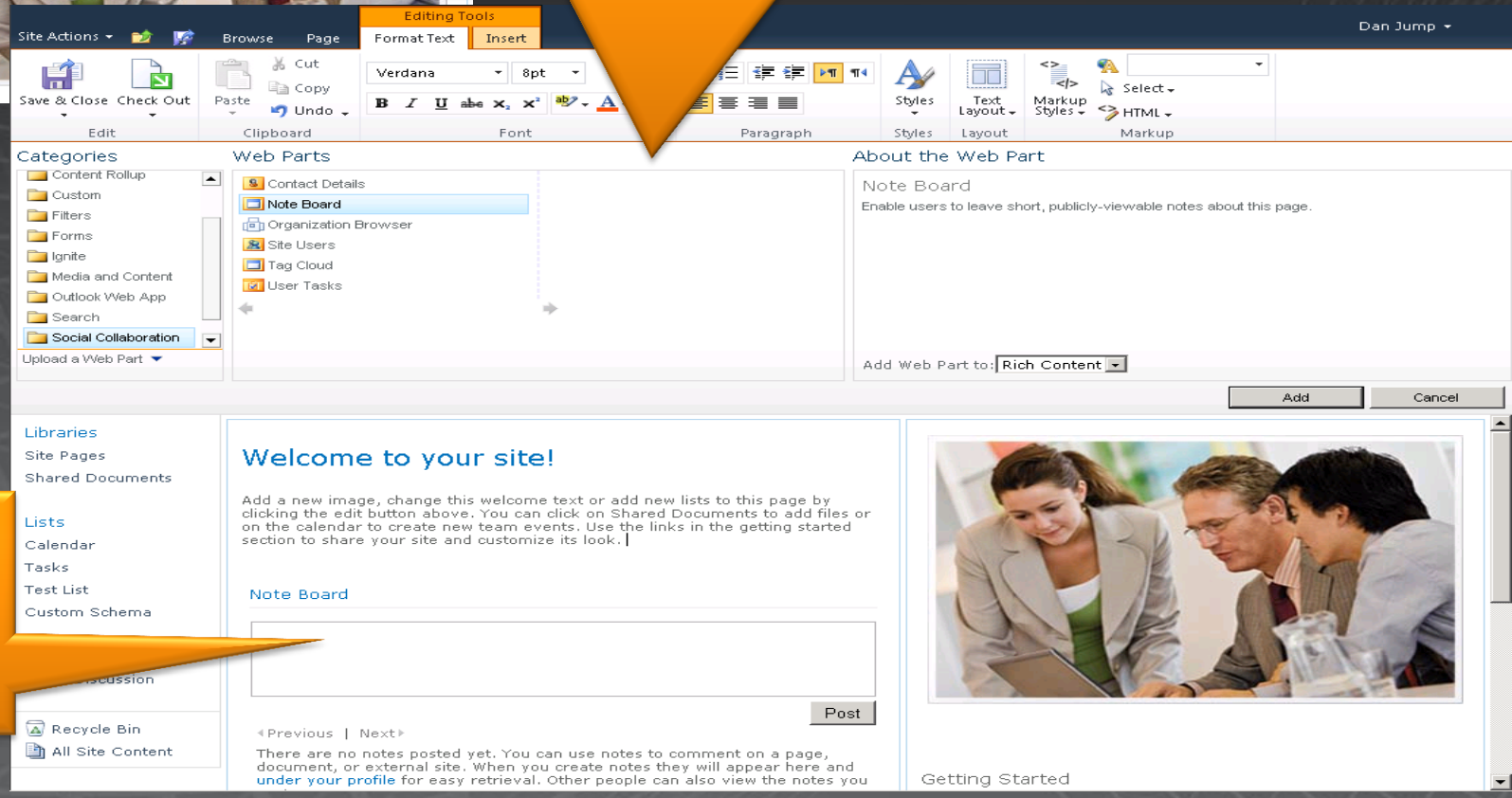
Wiki Editing Available via Mobile Access



New web part console

Wiki Content with visual editing



Add web parts to wiki content

How to Preview the Mobile Experience

Accessing the Mobile Experience

- To access mobile pages, the URL is the same as that of the desktop browser page. However, it can vary depending on the configuration and presence of web proxies. If the proxy-enabled URL is not known, the user can choose the “E-mail a link” button on the Page tab of the SharePoint ribbon in web part page, wiki page, list view page to receive the address in email body. SharePoint 2010 will automatically redirect to the mobile page if a user accesses the URL via a mobile browser.

- Recognition was made by USERAGENT to recognize for accessing mobile browser to redirect to mobile view is managed by the file “compat.browser” within the server’s IIS directory that manages device profiles (If the web application port is 80, the file path will be "\inetpub\wwwroot\wss\VirtualDirectories\80\App_Browsers\compat.browser"). With a text editor, the file can be modified to change redirect behavior. The **IsMobileDevice** attribute of that mobile browser when set to FALSE will cause SharePoint to bypass the mobile view for that browser.

Mobile Development Business Requirements

- Are your customers looking for an app or a web site?
- Apps are for frequent customers requiring a more tailored experience
- Utilize available usage analytics and published statistics
- What are the devices that they are using?
- What versions of the devices are being used?
- What features are your customers looking for?
- Understanding requirements and expectations for mobile experience
- What kind of content is being delivered?
- User input, graphical interface, advanced hardware

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Mobile Deployment Considerations

- **Elements that Need to be Configured to Properly Deploy SharePoint 2010 for Mobile Access:**
  - Firewall setting
  - Enabling mobile access
  - Developing governance for custom mobile solutions
  - Browser standards and requirements
  - Accessing the mobile experience
  - Security and Privacy

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Firewall Deployment Considerations

Firewall Considerations (Options Available Below)

- As mobile phones connect to the public Internet, the SharePoint server needs to be accessible outside of the corporate firewall. IT administrators can publish SharePoint via an SSL VPN gateway, use a mobile proxy or expose SharePoint server to internet directly.

SSL VPN Access

- One option is to use an SSL VPN gateway to publish SharePoint sites across the firewall.

Microsoft Forefront Access Gateway 2010

- Microsoft's Forefront Unified Access Gateway 2010 delivers comprehensive secure remote access to corporate resources for employees, partners, and vendors on both managed and unmanaged PCs and mobile devices. (SP1 is now available for UAG)
- Once the SharePoint server is published outside the firewall, the Alternative Access Mapping settings in the Central Administration page need to be configured.
- In addition, the sites to be published need to belong to a zone which allows cross firewall access.

Additional Security and Privacy

Security and Privacy

- Within the firewall SharePoint Workspace mobile client uses NTLM or Kerberos authentication schemes. Outside the firewall Basic authentication scheme over SSL is used to communicate with the SharePoint server published on UAG.
- Recommend enabling SSL communication for mobile browsing access to maintain secure communications between the mobile device and SharePoint server.
- When 2-factor authentication is required, it needs to be handled by the SSL VPN or proxy server and the mobile device.
- Finally, administrators should be aware that mobile browsers might cache information on the device. Recommend setting policies around device locking and types of information accessible on mobile phones to minimize the risk of privacy or other issues if a device is lost.

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SharePoint 2010 Mobile Proxy Servers

Mobile Proxy Servers

- Mobile Proxy Servers such as Microsoft's Mobile Device Manager or Blackberry Enterprise Server can also handle behind-the-firewall access to SharePoint.
- The server needs to pass the mobile browser's HTTP headers directly through to SharePoint to operate properly.
- The SharePoint Workspace mobile client works with the Microsoft's Mobile Device Manager.

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Enable Contents for Mobile Access

Enable Contents for Mobile Access

- While most mobile-enabled content is readily accessible out of the box, there are some data types that are either not supported or require additional configuration steps.
- Web part pages, document libraries/picture libraries, lists (e.g., calendars, contacts, tasks, etc.) blogs, wikis, Office documents, Search and My Site are available out of the box. The “list view” and “image” web parts are mobile enabled out of the box. The My Site and Search function for mobile are only available on SharePoint Server 2010 and not SharePoint Foundation 2010.
- Other web parts must to have a “mobile web part adapter” written which enables mobile functionality. More details on mobile adapters can be found in the Developing Custom Mobile Solutions section below. Pages under the “_Layouts” folder are not available as mobile pages.

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SharePoint 2010 Mobile Information Architecture

Good Information Architecture is about how users interact with Your Site in a Mobile Scenario:

- Provide a mobile optimized website
- Use device detection
- Allow users to opt into your desktop site
- With incoming links, do not redirect to the mobile homepage if a mobile version is unavailable. Instead, let the user continue to the desktop-specific page.
- Make sure your desktop website works on mobile browsers
- Understand your businesses mobile use cases
- Know what your customers are looking for
- Prioritize navigation accordingly
- High demand content should be easily accessible, above the fold
- Big buttons and clickable areas
- Tailor layout and content
- Single column layout
- Scrolling is OK but keep the physical layout simple

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How the Mobile View is Created in SP 2010

Enable Contents for Mobile Access

- When a mobile users tries to browse to a SharePoint 2010 Site from their mobile device, the mobile browser submits a HTTP GET request to the SharePoint website.
- In this request, a User Agent string is attached so the SharePoint website can identify the browser and possibly even the phone model.
- SharePoint analyzes this UA string, when it is a phone or mobile device, SharePoint will redirect the browser automatically to the mobile view and render the view based on the capability of the browser/phone type.
- A browser definition file is needed in this process to let SharePoint know what this browser can do.
- The browser definition file of a SharePoint Web Application which listening port 80 by default locates at:
- C:\inetpub\wwwroot\wss\VirtualDirectories\80\App_Browsers\compat.browser

Adding Mobile Devices \ Browser Support

- You can modify the SharePoint Browser definition file at: \\Inetpub\wwwroot\wss\VirtualDirectories\port_number\App_Browsers\compat.browser, where *port_number* is the port number of a Web application, to add support for new mobile devices

- For testing, you will occasionally want to force a computer browser to open a mobile page by appending "?Mobile=1" to the end of the URL of the page. To force the computer browser to invoke Home Page Redirection, specify default.aspx as the page name, for example:
- http://MyServer/MySite/default.aspx**?Mobile=1**
- If the legacy MobileRedirection feature has been activated for the Web site, then adding: http://MyServer/MySite/**m**
-

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Browser Definition Files (Adding Capabilities)

<browsers> <browser id="browser name" parentID="parent browser name" refID="reference ID">
<identification> <userAgent match="regular expression" nonMatch="regular expression" />
<header match="regular expression" name="header name" nonMatch="regular expression" />
<capability match="regular expression" name="capability name" nonMatch="regular expression" />
</identification> <capture> <userAgent match="regular expression" /> <header match="regular
expression" name="header name" /> <capability match="regular expression" name="capability name"/>
</capture> <capabilities> <capability name="capability name" value="capability value" />
</capabilities> <controlAdapters markupTextWriterType="type name"> <adapter adapterType="name
of adapter class" controlType="name of control class" /> </controlAdapters> <sampleHeaders>
<header name="header name" value="header value" /> </sampleHeaders> </browser> <gateway
id="gateway ID" parentID="parent browser ID"> <!-- Same child elements as for <browser>.
<identification></identification> <capture></capture> <capabilities></capabilities>
<controlAdapters></controlAdapters> <sampleHeaders></sampleHeaders> --> </gateway>
<defaultBrowser id="Default" parentID="parent browser ID" refID="reference ID" > <!-- Same child
elements as for <browser>. <identification></identification> <capture></capture>
<capabilities></capabilities> <controlAdapters></controlAdapters>
<sampleHeaders></sampleHeaders> --> </defaultBrowser> </browsers>

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Mobile Governance - Templates

Control Templates

- Mobile views are enabled by default for most SharePoint lists and libraries but an organization can create a custom set of mobile templates available to their users as well as for a specific mobile device.
- SharePoint 2010 mobile features use a system of rendering templates that is similar to the one implemented for pages displayed in the browser.
- The MobileDefaultTemplates.ascx and GbwMobileDefaultTemplates.ascx files in the %ProgramFiles%\Common Files\Microsoft Shared\web server extensions\14\TEMPLATE\CONTROLTEMPLATES directory contain all the default rendering template definitions that are used in mobile pages.
- SharePoint 2010 support for Mobile Blogging includes support for all the other SharePoint mobile features, such as pagination, list field customization, mobile view customization, mobile home page redirection, and so on. To build your own mobile blog solution, you can customize SharePoint mobile blog pages and mobile controls similarly to the way you customize other mobile pages and controls.

Mobile Governance – Web Parts \ Wikis

Mobile Sites with Custom Web Parts

- The mobile page (%ProgramFiles%\Common Files\Microsoft Shared\web server extensions\14\TEMPLATE\LAYOUTS\MOBILE\mblwp.aspx) renders on mobile devices the content of any Web Part site page unless there is a specific purpose-built mobile page for it (as there is, for example, for the home page of blog sites). However, Web Parts for which there is no mobile adapter control do not appear on the mobile version of the page.
- The mobile version of the page is not itself a Web Parts page and the mobile adapters are ordinary Web controls, not Web Parts. The page inherits from the WebPartMobilePage class, but the latter class does not derive from WebPartPage.

Mobile Sites with Custom Wiki Features or Functionality

- The mobile page (%ProgramFiles%\Common Files\Microsoft Shared\web server extensions\14\TEMPLATE\LAYOUTS\MOBILE\mblwiki.aspx) renders the content of any wiki-enabled site page on mobile devices, provided that the mobile device supports Rich Text. The Rich Text and any Web Parts on the page (for which there is a mobile adapter) will appear.

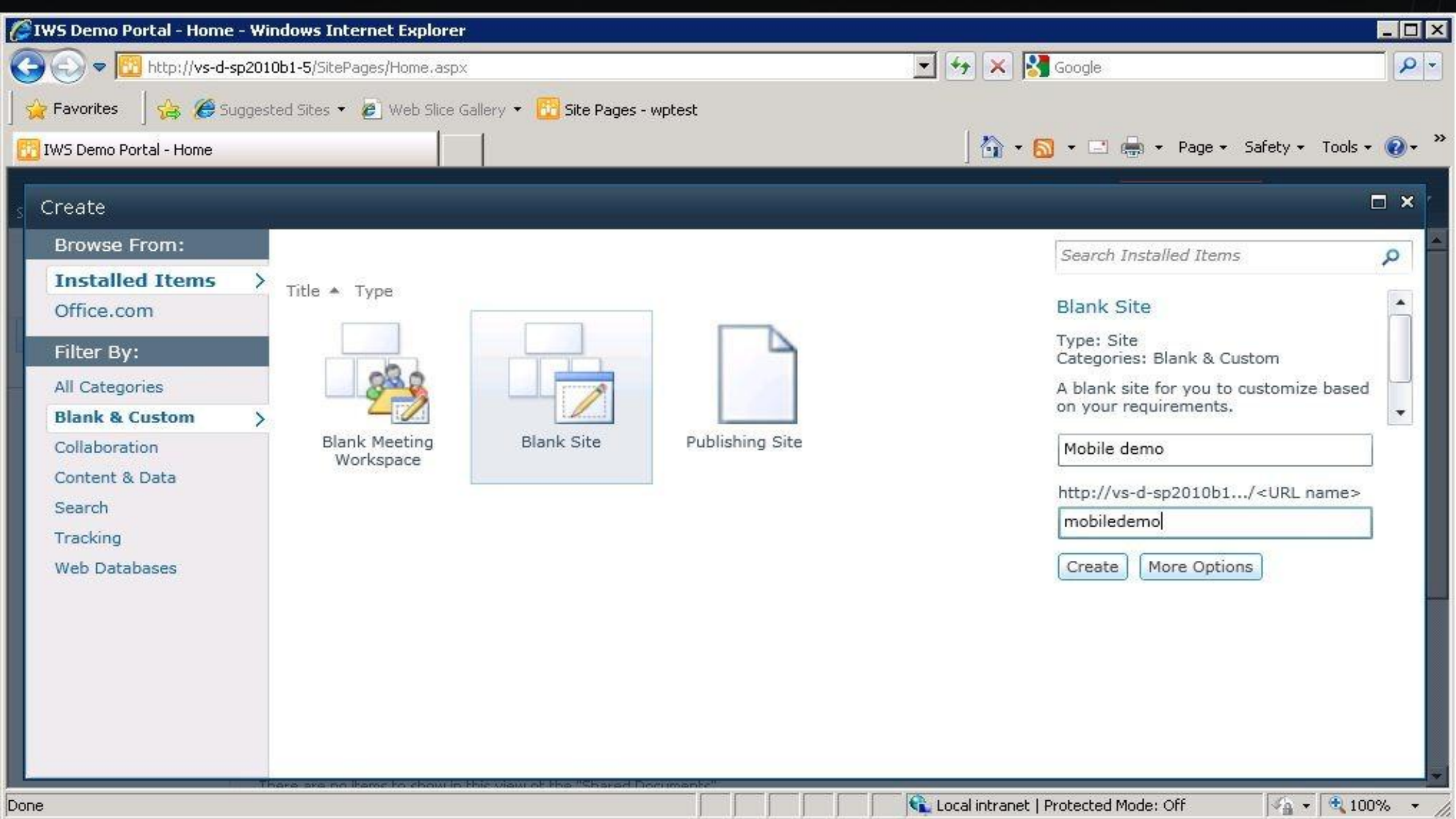
Consideration for Infrastructure

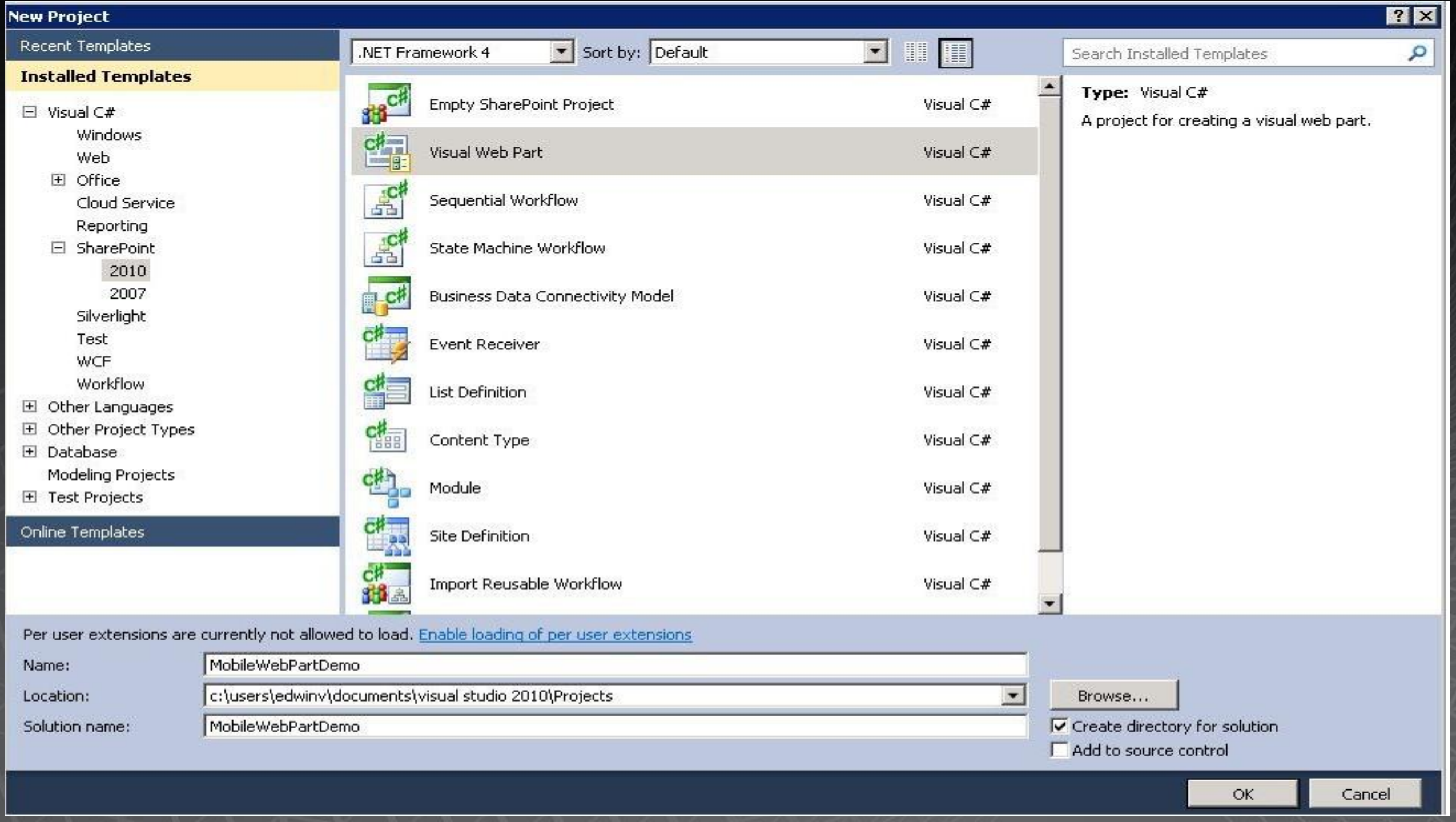
Keep track of the payload sizes of your mobile pages

- While cell network speeds continue to increase, you can't be sure everyone has the same level of access to 3G/4G
- Creating custom SharePoint Sites with custom masterpages and markup give you the control to limit the physical page size
- When using images and other forms of media, keep their size in mind for your mobile customers

With so many mobile devices available, version support should always be a consideration

- For native applications, the difference between one version of a mobile OS to another can bring major changes
- For mobile applications, understand the rendering engine being used across various devices


IWS Demo Portal - Home - Windows Internet Explorer
http://vs-d-sp2010b1-5/SitePages/Home.aspx
Google
Favorites
Suggested Sites
Web Slice Gallery
Site Pages - wptest
IWS Demo Portal - Home
Page
Safety
Tools
Create
Browse From:
Installed Items
Office.com
Filter By:
All Categories
Blank & Custom
Collaboration
Content & Data
Search
Tracking
Web Databases
Title
Type
Blank Meeting Workspace
Blank Site
Publishing Site
Search Installed Items
Blank Site
Type: Site
Categories: Blank & Custom
A blank site for you to customize based on your requirements.
Mobile demo
http://vs-d-sp2010b1.../<URL name>
mobiledemo
Create
More Options
Done
Local intranet | Protected Mode: Off
100%


New Project
Recent Templates
Installed Templates
Visual C#
Windows
Web
Office
Cloud Service
Reporting
SharePoint
2010
2007
Silverlight
Test
WCF
Workflow
Other Languages
Other Project Types
Database
Modeling Projects
Test Projects
Online Templates
.NET Framework 4
Sort by:
Default
Search Installed Templates
Empty SharePoint Project
Visual C#
Visual Web Part
Visual C#
Sequential Workflow
Visual C#
State Machine Workflow
Visual C#
Business Data Connectivity Model
Visual C#
Event Receiver
Visual C#
List Definition
Visual C#
Content Type
Visual C#
Module
Visual C#
Site Definition
Visual C#
Import Reusable Workflow
Visual C#
Type: Visual C#
A project for creating a visual web part.
Per user extensions are currently not allowed to load. Enable loading of per user extensions
Name:
MobileWebPartDemo
Location:
c:\users\edwinv\documents\visual studio 2010\Projects
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MobileWebPartDemo
Browse...
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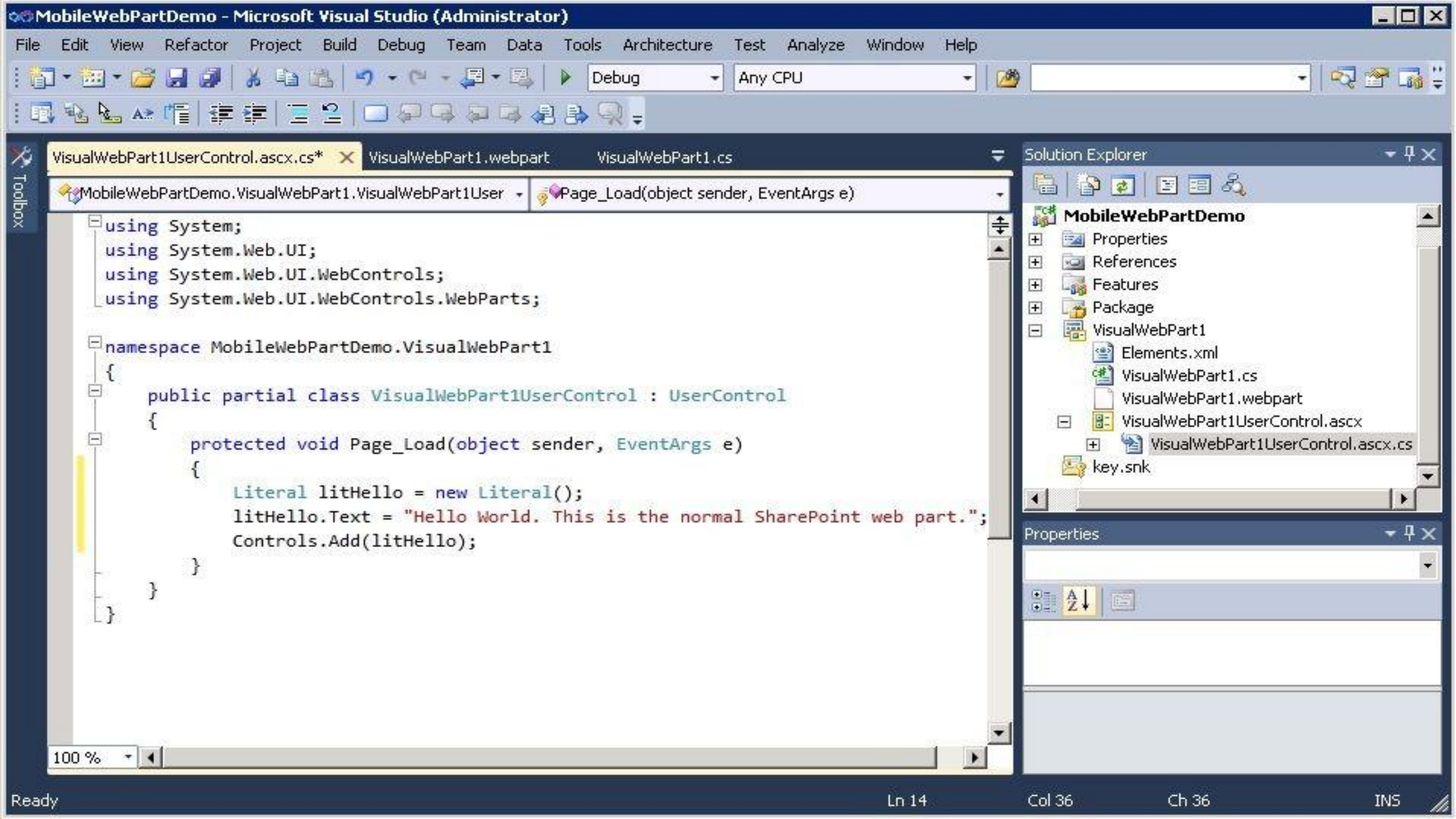
Add to source control
OK
Cancel


MobileWebPartDemo - Microsoft Visual Studio (Administrator)
File Edit View Refactor Project Build Debug Team Data Tools Architecture Test Analyze Window Help
Debug
Any CPU
Toolbox
VisualWebPart1UserControl.ascx.cs*
VisualWebPart1.webpart
VisualWebPart1.cs
MobileWebPartDemo.VisualWebPart1.VisualWebPart1User
Page_Load(object sender, EventArgs e)
using System;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
namespace MobileWebPartDemo.VisualWebPart1
{
public partial class VisualWebPart1UserControl : UserControl
{
protected void Page_Load(object sender, EventArgs e)
{
Literal litHello = new Literal();
litHello.Text = "Hello World. This is the normal SharePoint web part.";
Controls.Add(litHello);
}
}
}
100 %
Solution Explorer
MobileWebPartDemo
Properties
References
Features
Package
VisualWebPart1
Elements.xml
VisualWebPart1.cs
VisualWebPart1.webpart
VisualWebPart1UserControl.ascx
VisualWebPart1UserControl.ascx.cs
key.snk
Properties
Ready
Ln 14
Col 36
Ch 36
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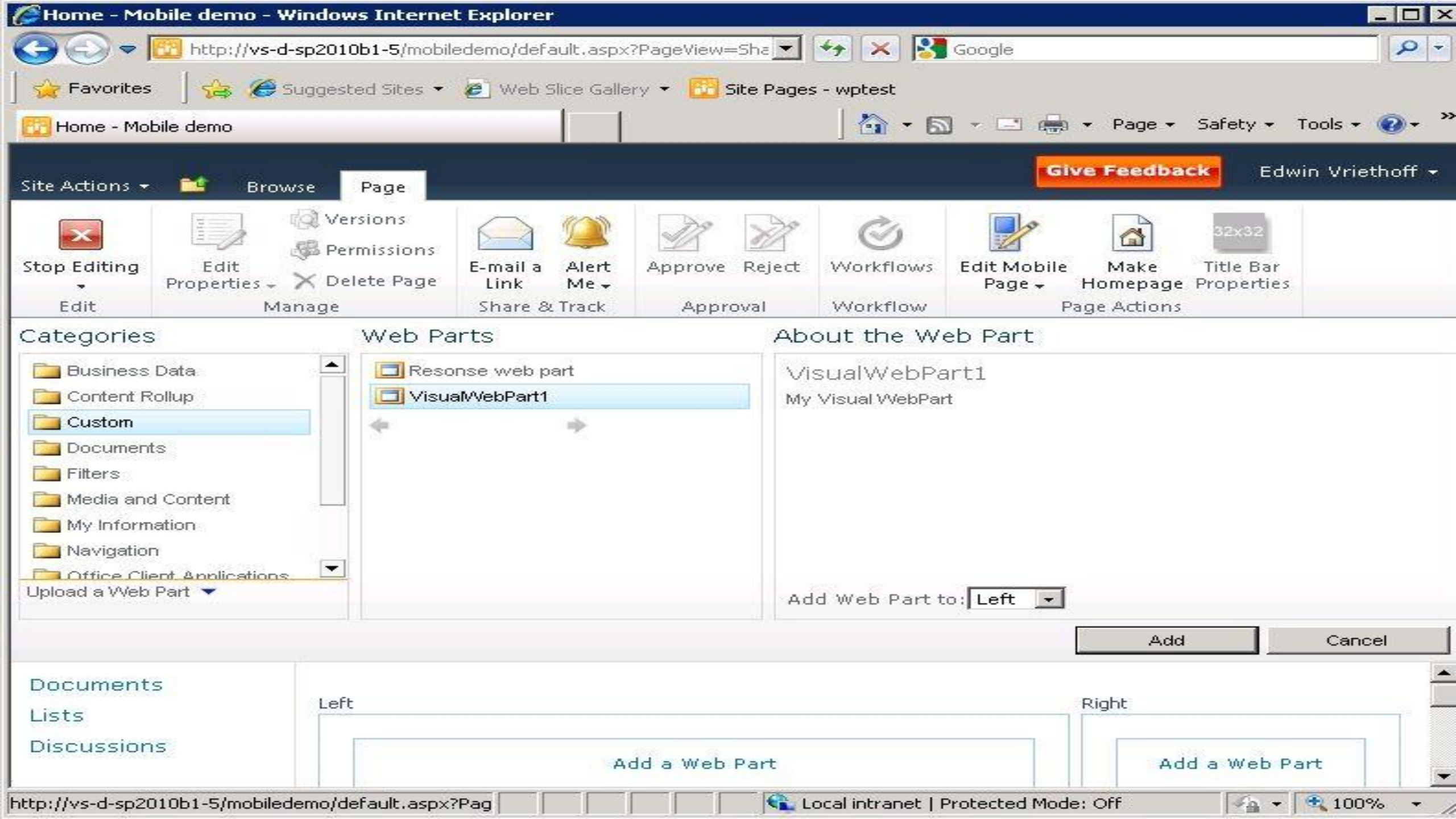
Home - Mobile demo - Windows Internet Explorer
http://vs-d-sp2010b1-5/mobiledemo/default.aspx?PageView=Sha
Google
Favorites
Suggested Sites
Web Slice Gallery
Site Pages - wptest
Home - Mobile demo
Page
Safety
Tools
Site Actions
Browse
Page
Give Feedback
Edwin Vriethoff
Stop Editing
Edit
Edit Properties
Versions
Permissions
Delete Page
Manage
E-mail a Link
Alert Me
Share & Track
Approve
Reject
Approval
Workflows
Workflow
Edit Mobile Page
Make Homepage
32x32
Title Bar Properties
Page Actions
Categories
Business Data
Content Rollup
Custom
Documents
Filters
Media and Content
My Information
Navigation
Office Client Applications
Upload a Web Part
Web Parts
Resonse web part
VisualWebPart1
About the Web Part
VisualWebPart1
My Visual WebPart
Add Web Part to:
Left
Add
Cancel
Documents
Lists
Discussions
Left
Add a Web Part
Right
Add a Web Part
http://vs-d-sp2010b1-5/mobiledemo/default.aspx?Pag
Local intranet | Protected Mode: Off
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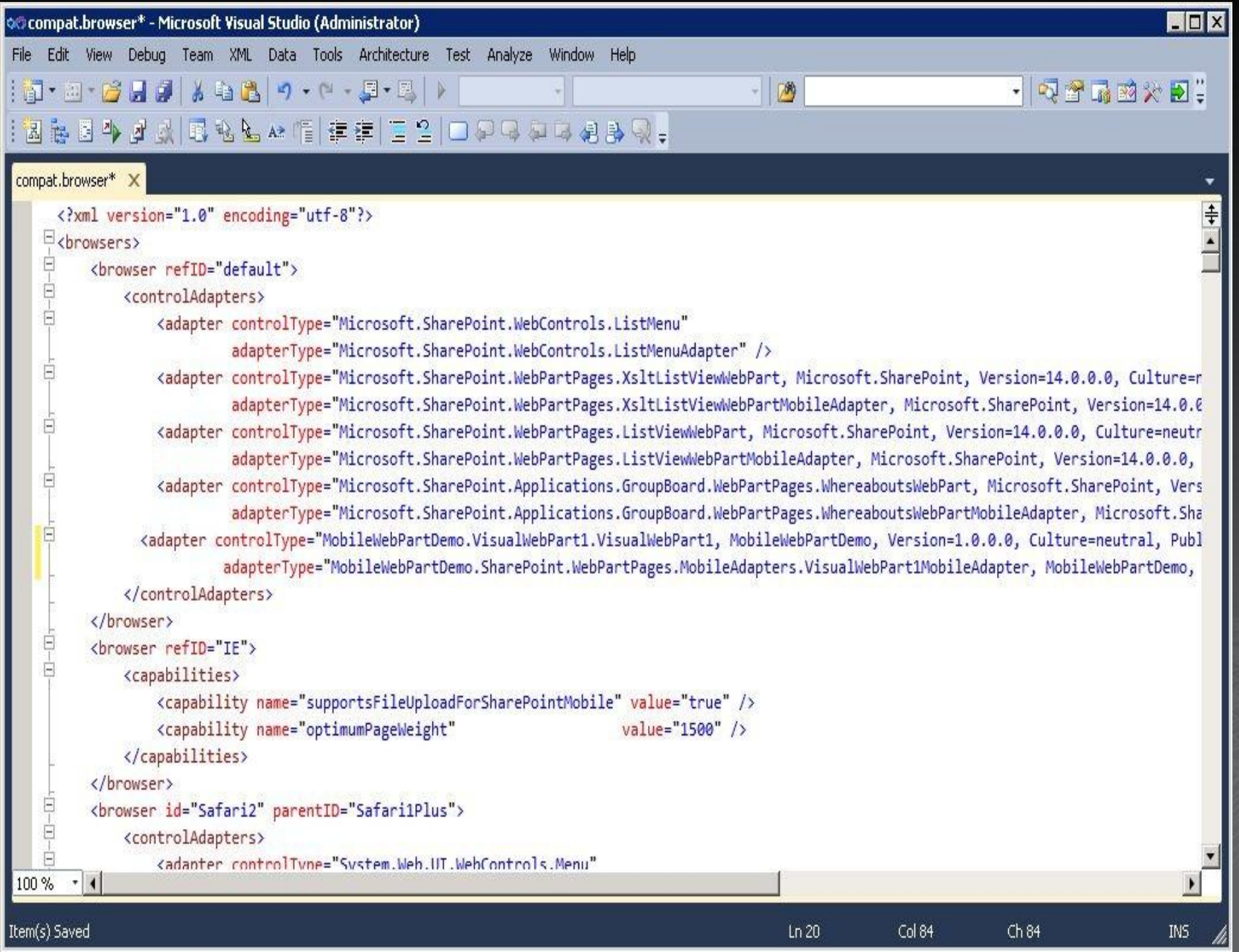
compat.browser* - Microsoft Visual Studio (Administrator)
File Edit View Debug Team XML Data Tools Architecture Test Analyze Window Help
compat.browser*
<?xml version="1.0" encoding="utf-8"?>
<browsers>
<browser refID="default">
<controlAdapters>
<adapter controlType="Microsoft.SharePoint.WebControls.ListMenu"
adapterType="Microsoft.SharePoint.WebControls.ListMenuAdapter" />
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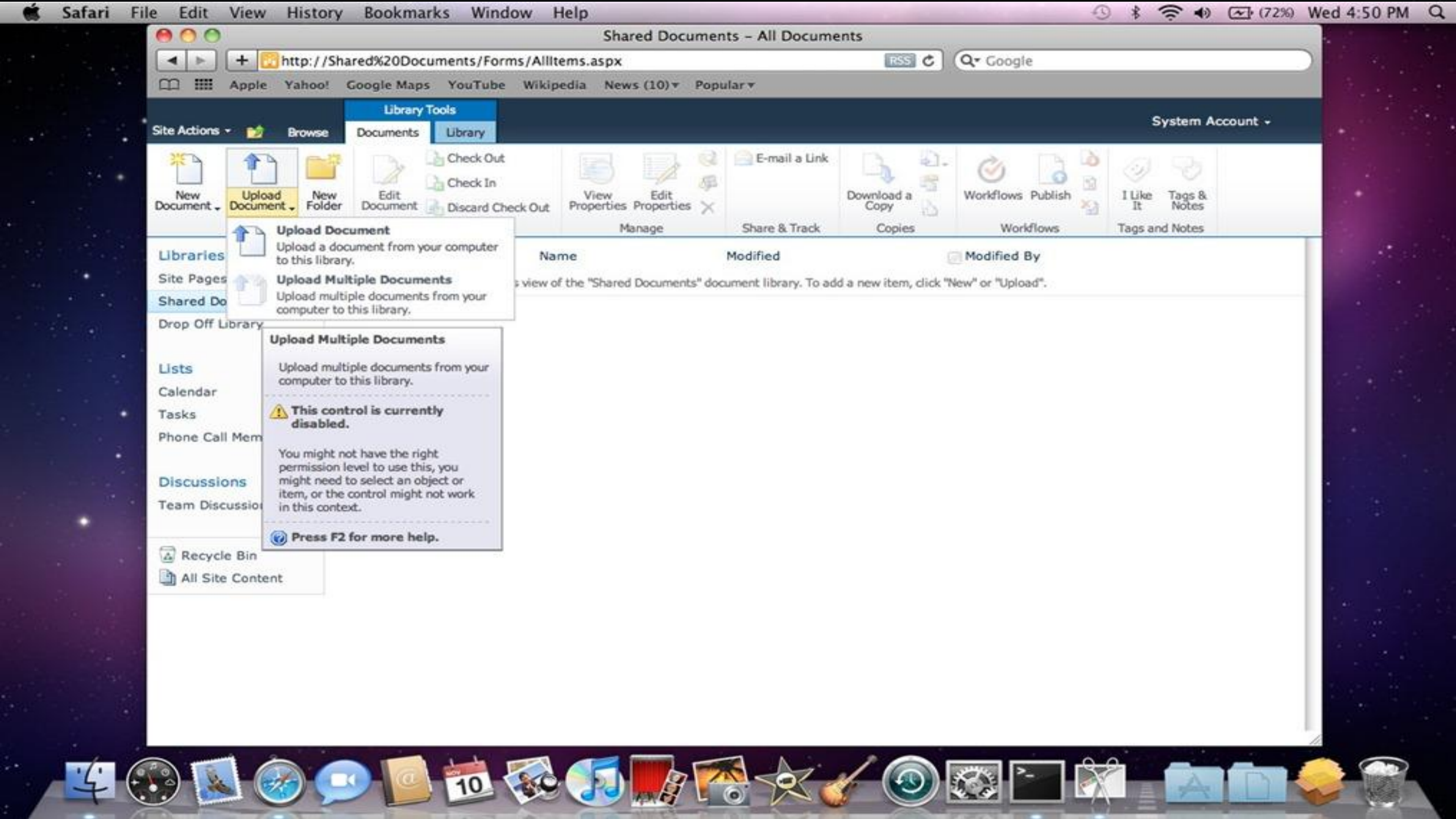
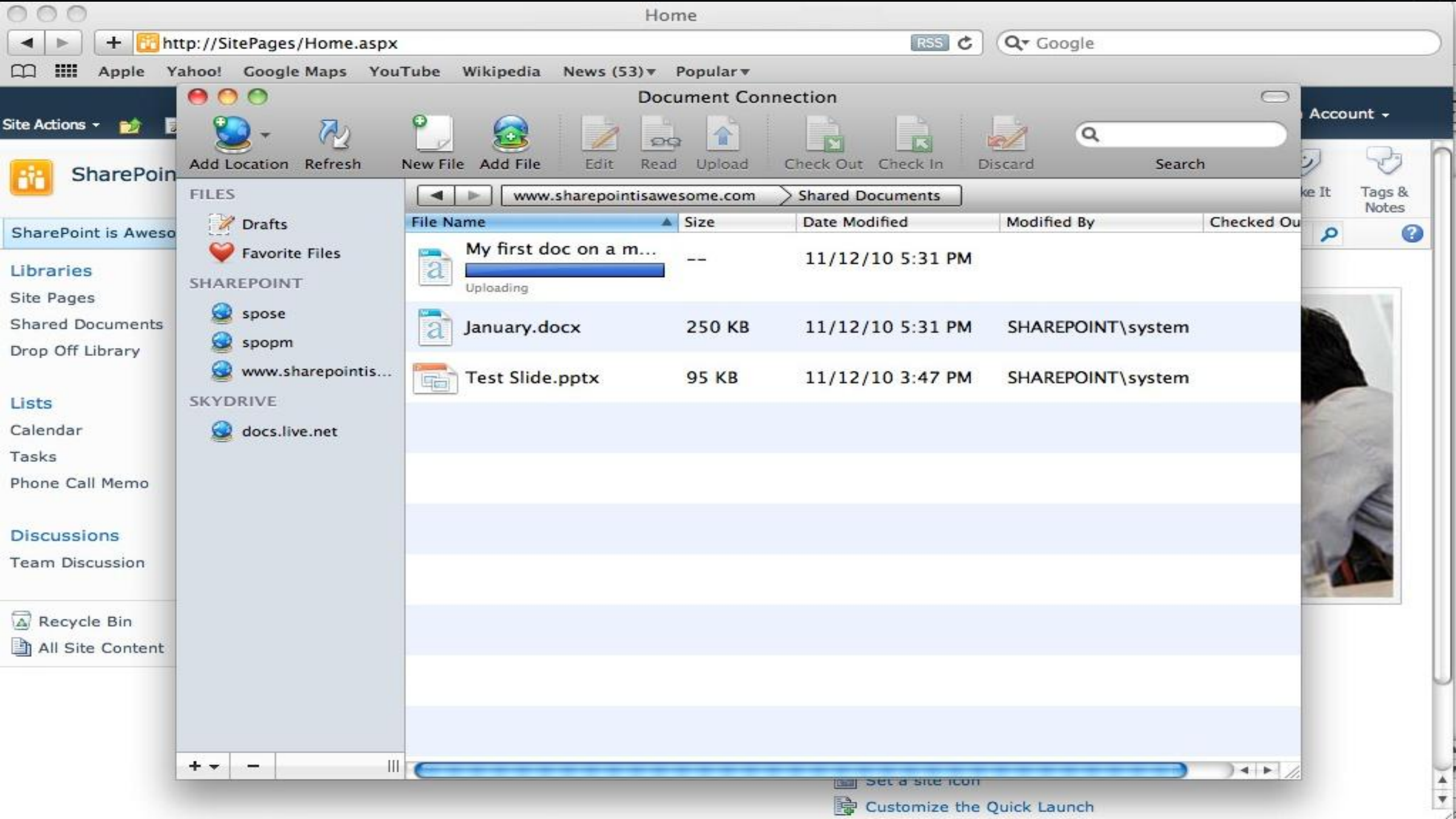
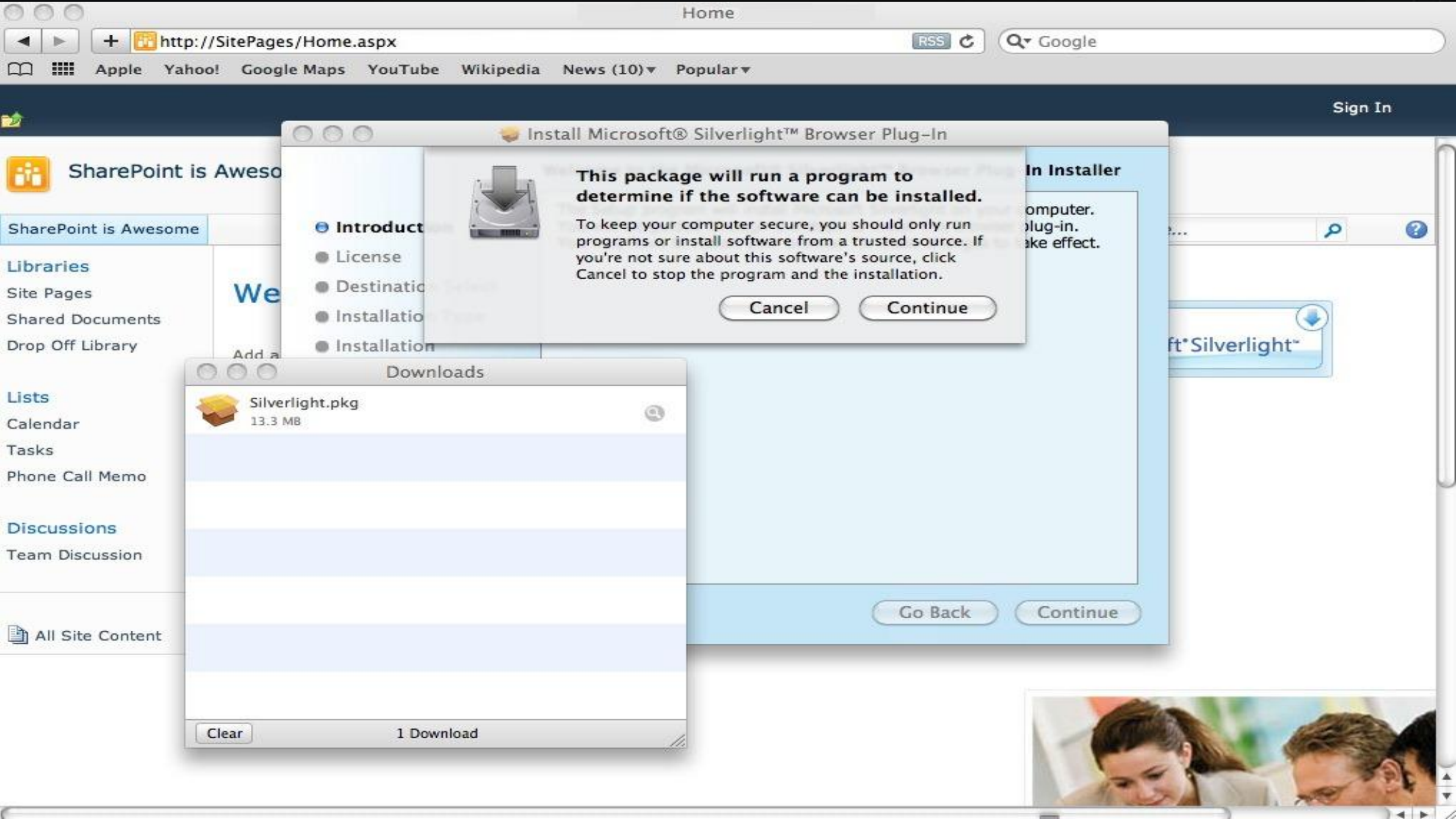
100 %
Item(s) Saved
Ln 20
Col 84
Ch 84
INS

Mobile demo - Windows Intern...
http://vs-d-sp2010...
Favorites
Suggested Sites
Mobile demo
Mobile demo
All Site Content
Hello World. This is the Mobile version of the SharePoint web part.
All Site Content
My Site
Search
Home(Mobile demo)
Local intranet | Prote
100%


Safari File Edit View History Bookmarks Window Help
(72%) Wed 4:50 PM
Shared Documents - All Documents
http://Shared%20Documents/Forms/AllItems.aspx
Google
Apple Yahoo! Google Maps YouTube Wikipedia News (10) Popular
Library Tools
Site Actions
Browse
Documents
Library
System Account
New Document
Upload Document
New Folder
Edit Document
Check Out
Check In
Discard Check Out
View Properties
Edit Properties
Manage
E-mail a Link
Share & Track
Download a Copy
Copies
Workflows
Publish
Workflows
I Like It
Tags & Notes
Tags and Notes
Upload Document
Upload a document from your computer to this library.
Upload Multiple Documents
Upload multiple documents from your computer to this library.
Libraries
Site Pages
Shared Do
Drop Off Library
Lists
Calendar
Tasks
Phone Call Mem
Discussions
Team Discussio
Recycle Bin
All Site Content
Name
Modified
Modified By
view of the "Shared Documents" document library. To add a new item, click "New" or "Upload".
Upload Multiple Documents
Upload multiple documents from your computer to this library.
This control is currently disabled.
You might not have the right permission level to use this, you might need to select an object or item, or the control might not work in this context.
Press F2 for more help.


Home
http://SitePages/Home.aspx
Google
Apple
Yahoo!
Google Maps
YouTube
Wikipedia
News (53)
Popular
Site Actions
Account
SharePoint
SharePoint is Aweso
Libraries
Site Pages
Shared Documents
Drop Off Library
Lists
Calendar
Tasks
Phone Call Memo
Discussions
Team Discussion
Recycle Bin
All Site Content
Tags & Notes
Document Connection
Add Location
Refresh
New File
Add File
Edit
Read
Upload
Check Out
Check In
Discard
Search
FILES
Drafts
Favorite Files
SHAREPOINT
spose
spopm
www.sharepointis...
SKYDRIVE
docs.live.net
www.sharepointisawesome.com
Shared Documents
File Name
Size
Date Modified
Modified By
Checked Ou
My first doc on a m...
Uploading
--
11/12/10 5:31 PM
January.docx
250 KB
11/12/10 5:31 PM
SHAREPOINT\system
Test Slide.pptx
95 KB
11/12/10 3:47 PM
SHAREPOINT\system
Customize the Quick Launch


Home
http://SitePages/Home.aspx
RSS
Google
Apple
Yahoo!
Google Maps
YouTube
Wikipedia
News (10)
Popular
Sign In
SharePoint is Awesome
SharePoint is Awesome
Libraries
Site Pages
Shared Documents
Drop Off Library
Lists
Calendar
Tasks
Phone Call Memo
Discussions
Team Discussion
All Site Content
Install Microsoft® Silverlight™ Browser Plug-In
This package will run a program to determine if the software can be installed.
To keep your computer secure, you should only run programs or install software from a trusted source. If you're not sure about this software's source, click Cancel to stop the program and the installation.
Cancel
Continue
Introduction
License
Destination
Installation Type
Installation
Go Back
Continue
Downloads
Silverlight.pkg
13.3 MB
Clear
1 Download

Home

http://SitePages/Home.aspx

Google

Apple Yahoo! Google Maps YouTube Wikipedia News (10) Popular

Sign In

t is Awesome ▸ Home

me

Search this site...

Welcome to your site!

Add a new image, change this welcome text or add new lists to this page by clicking the edit button above. You can click on Shared Documents to add files or on the calendar to create new team events. Use the links in the getting started section to share your site and customize its look.

Shared Documents

Type Name Modified Modified By

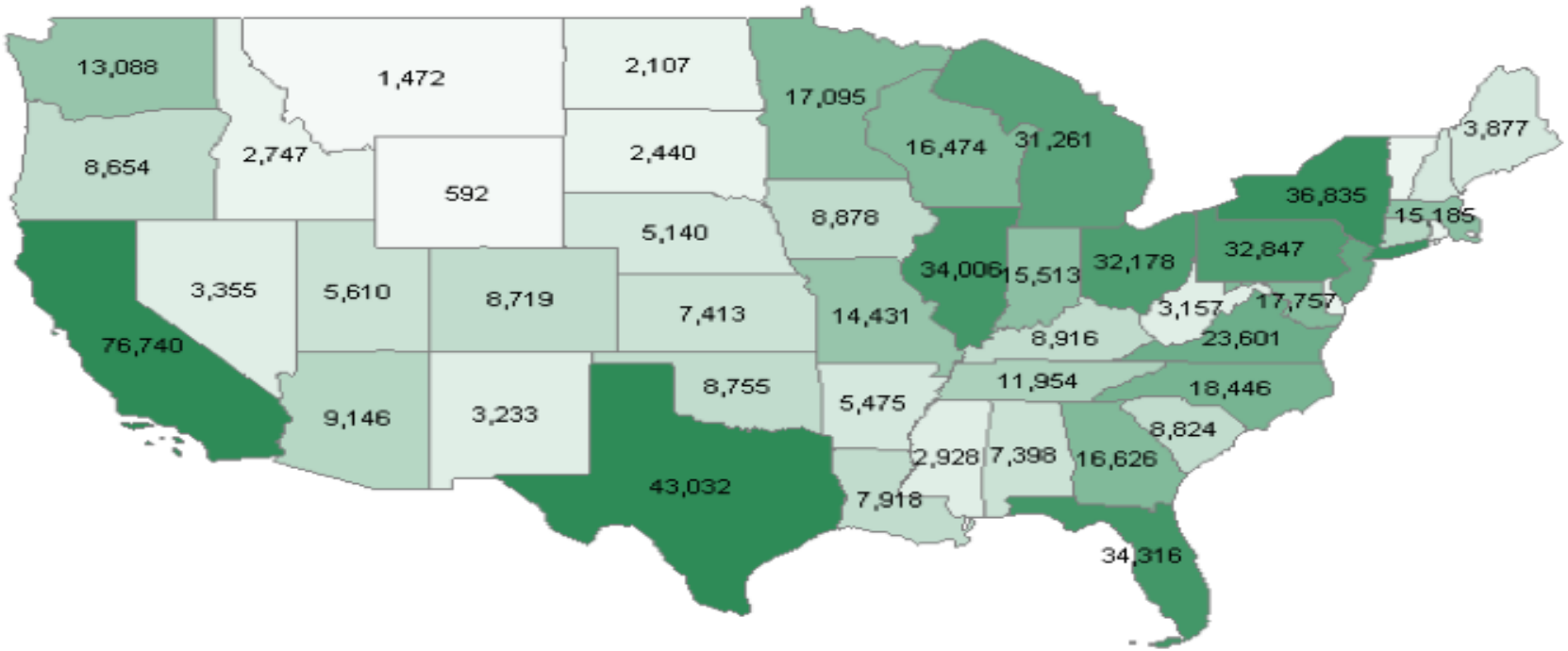
There are no items to show in this view of the "Shared Documents" document library.

HTML5 Video Tag Demo

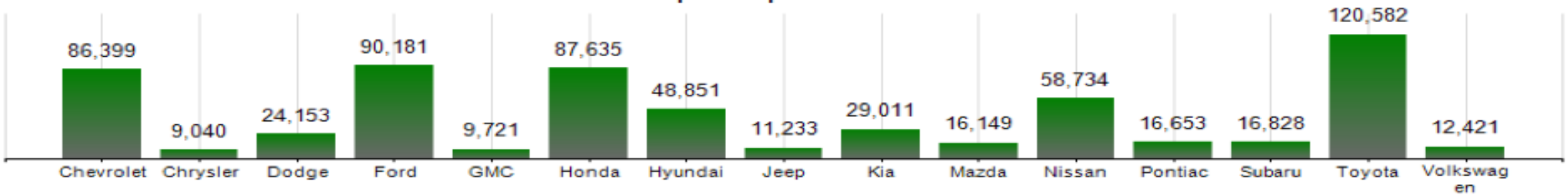
Media Web Part

iPad 9:27 PM 93%
Untitled
/demo/iPad/Reports/CashForClu
Google

Trade-In Count by State

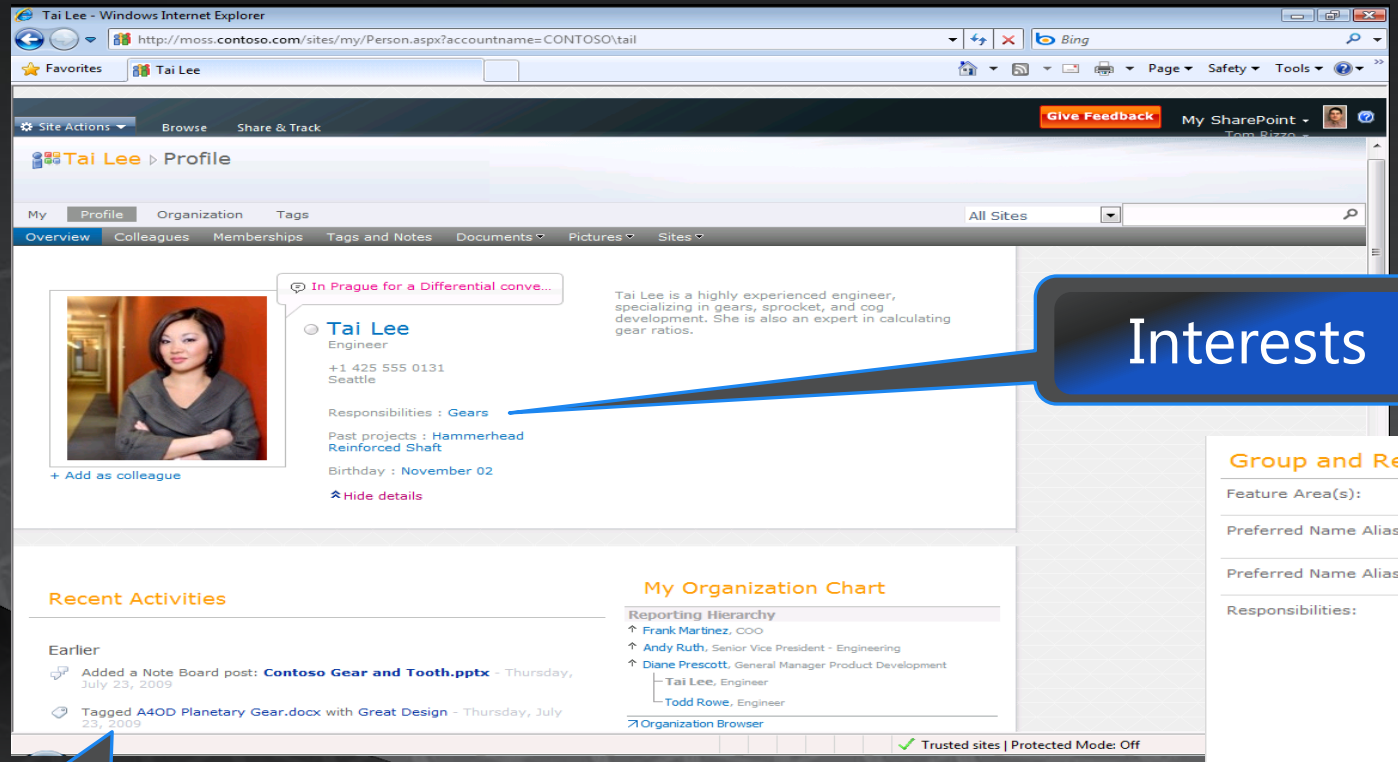


Most Popular Replacement Vehicles



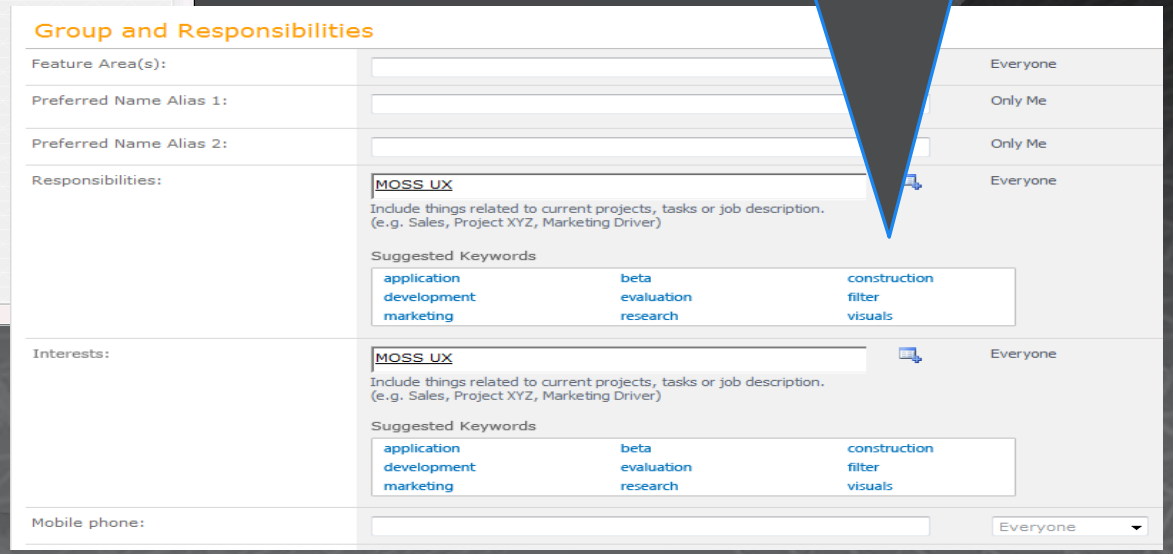
SharePoint Communities

Use My Site to share your interests, responsibilities and activities



Interests

Define responsibilities or interests with tags



Activities

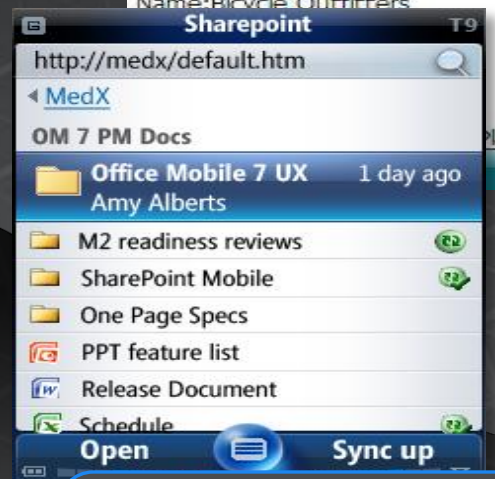
SharePoint Communities

Easily find expertise with People Search

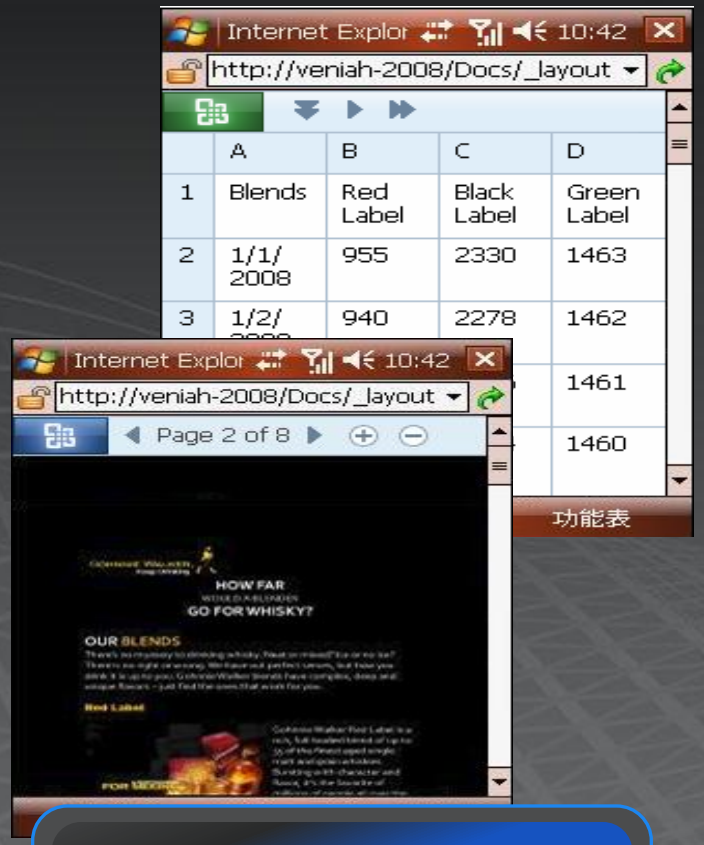
Search by expertise and profile

SharePoint Sites - Mobile

Work anywhere with Mobile read-write access



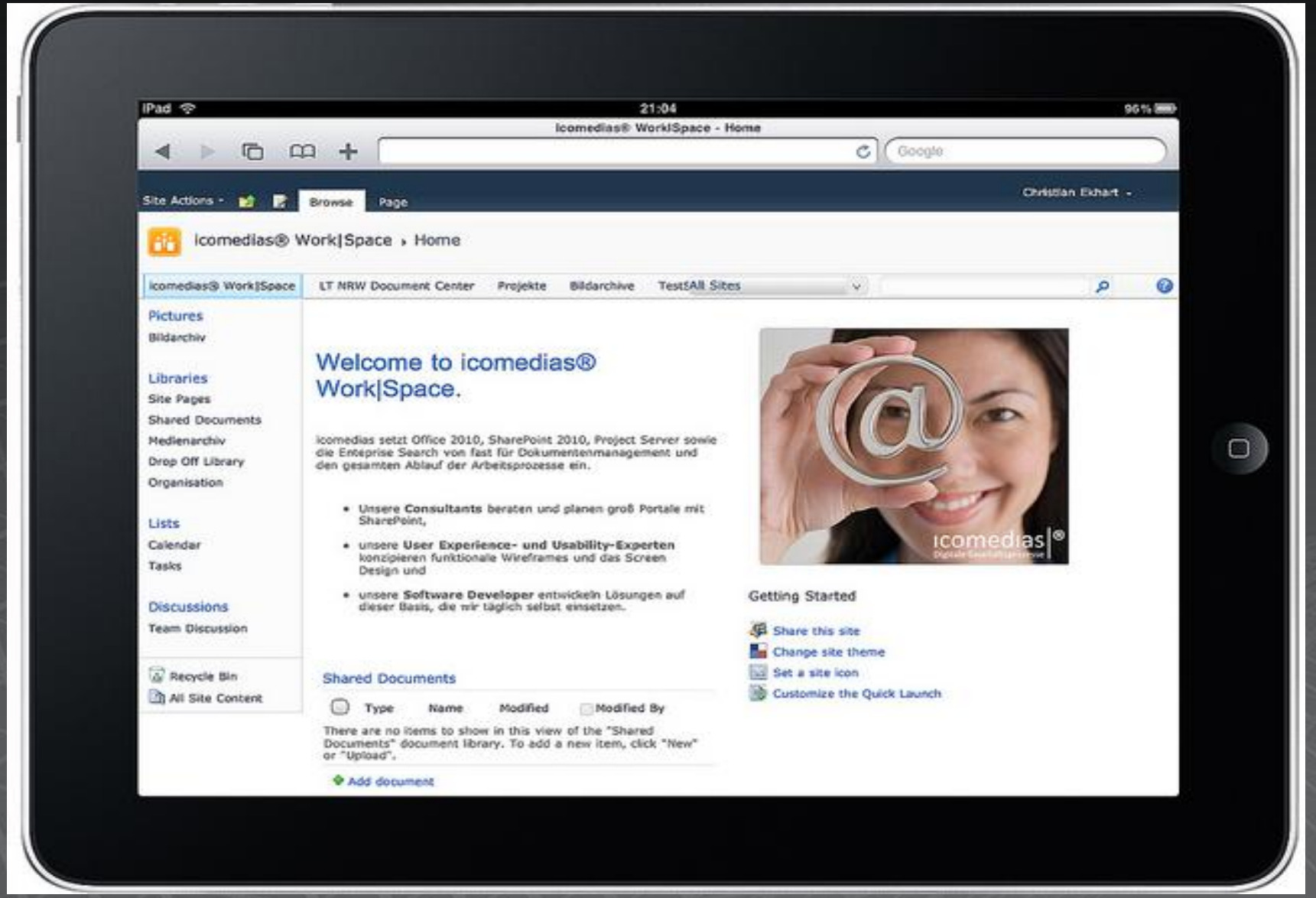
Navigate doc libraries and LOB data



Interact with Office content

Search people

SharePoint 2010 & iPad



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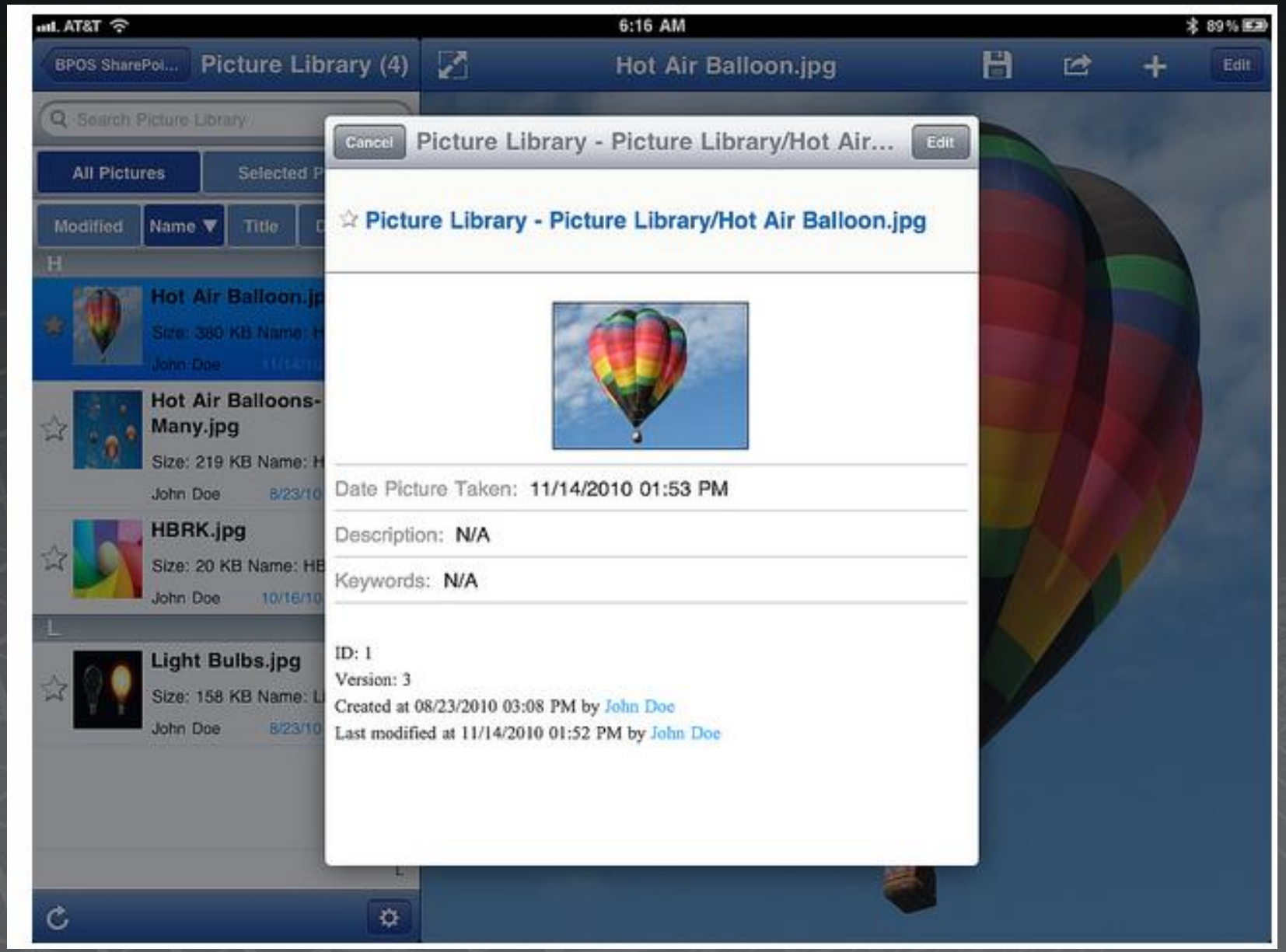
SharePoint 2010 & iPad



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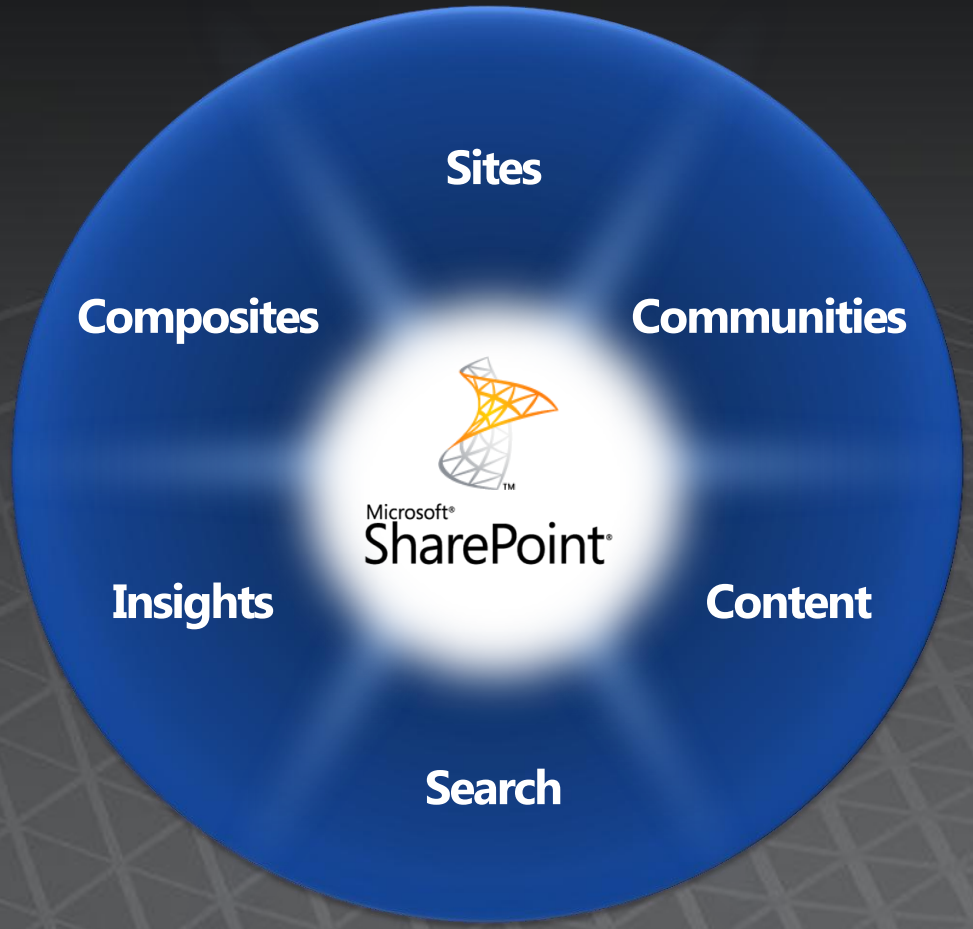
Microsoft SharePoint 2010

The Business Collaboration Platform for the Enterprise and the Web



Connect and Empower People

Cut Costs with a Unified Infrastructure

Rapidly Respond to Business Needs

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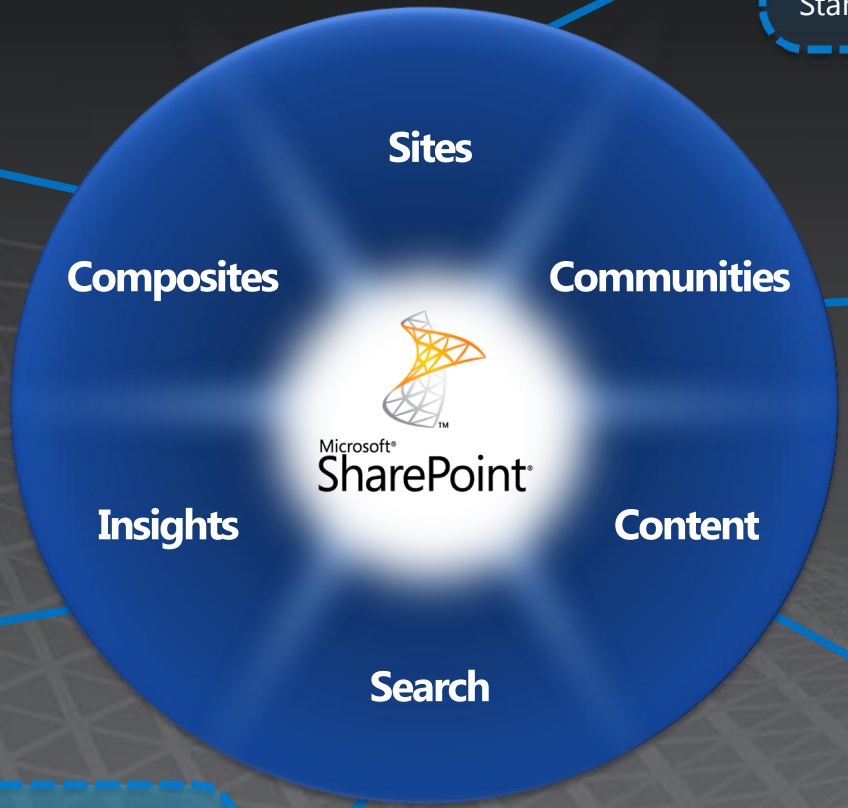
Microsoft SharePoint 2010



Ribbon UI
SharePoint Workspace
SharePoint Mobile
Office Client and Office Web App Integration
Standards Support

Business Connectivity Services
InfoPath Form Services
External Lists
Workflow
SharePoint Designer
Visual Studio
API Enhancements
REST/ATOM/RSS

Tagging, Tag Cloud, Ratings
Social Bookmarking
Blogs and Wikis
My Sites
Activity Feeds
Profiles and Expertise
Org Browser

PerformancePoint Services
Excel Services
Chart Web Part
Visio Services
Web Analytics
SQL Server Integration
PowerPivot

Enterprise Content Types
Metadata and Navigation
Document Sets
Multi-stage Disposition
Audio and Video Content Types
Remote Blob Storage
List Enhancements

Social Relevance
Phonetic Search
Navigation
FAST Integration
Enhanced Pipeline

Social Feedback in 2010

- Feedback = Social Tags, Notes and Ratings
  - Helps categorize, annotate, promote and help retrieval of relevant links
  - Applies to any URL, inside or outside of SharePoint with bookmarklet
  - Own permission setting for writing
  - Primary mechanism for promoting documents and web pages to the newsfeed
- At the very basic level it is>
  - Person, URI, Feedback

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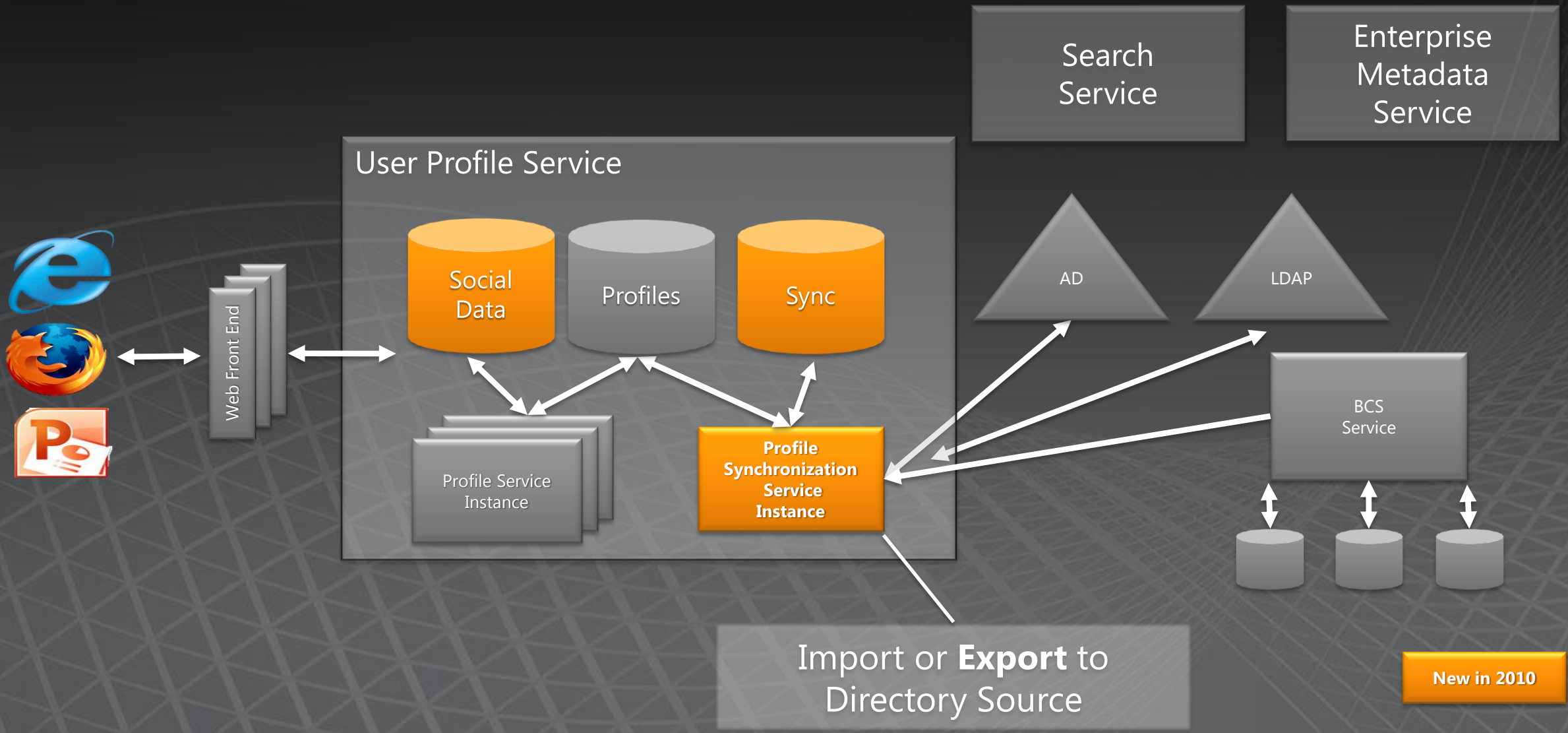
Profile Synchronization



Security Trimming for Social Content

- Social content is dependent on search functionality
- Search will use specific social security trimmer by default for all social content
  - User is not able to see for example tags to which target he/she has permissions to
- Can be configured using PowerShell
- Support for writing custom security trimming available

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User profile timer jobs

- There are numerous timer jobs, which are related to social functionalities
- Timer jobs are responsible to update social information for MySites etc.

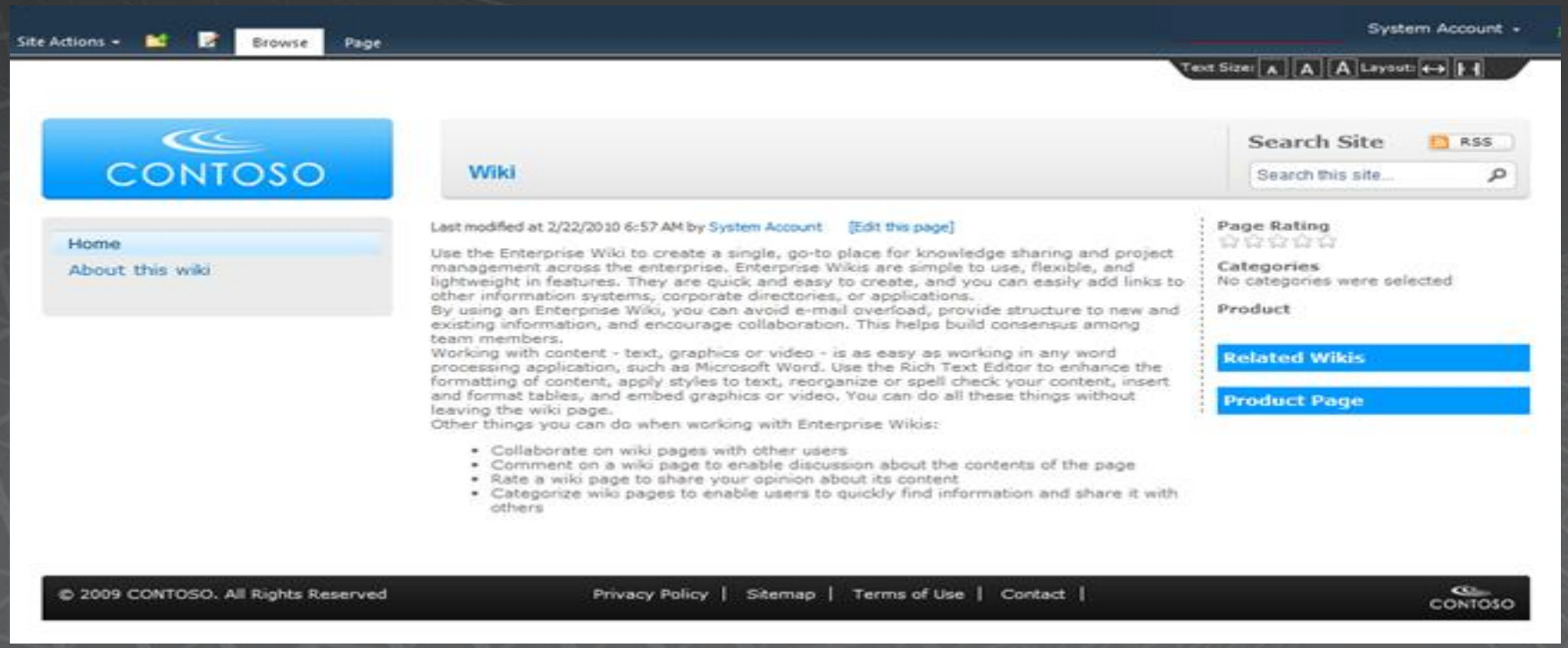
User Profiles - Activity Feed Cleanup Job	Daily
User Profiles - Activity Feed Job	Hourly
User Profiles - Audience Compilation Job	Weekly
User Profiles - My Site Suggestions Email Job	Monthly
User Profiles - Social Data Maintenance Job	Hourly
User Profiles - Social Rating Synchronization Job	Hourly
User Profiles - System Job to Manage User Profile Synchronization	Minutes
User Profiles - User Profile Change Cleanup Job	Daily
User Profiles - User Profile Change Job	Hourly
User Profiles - User Profile Incremental Synchronization	Daily
User Profiles - User Profile Language Synchronization Job	Minutes
User Profiles - User Profile to SharePoint Full Synchronization	Hourly
User Profiles - User Profile to SharePoint Quick Synchronization	Minutes

Enterprise Wiki Architecture

- Enterprise Wiki is a publishing site
  - Branded using familiar Master pages and CSS
  - Extended using content types and page layouts
  - Scalable via publishing feature cache scheme
- Enterprise Wiki using managed metadata
  - Metadata column automatically added

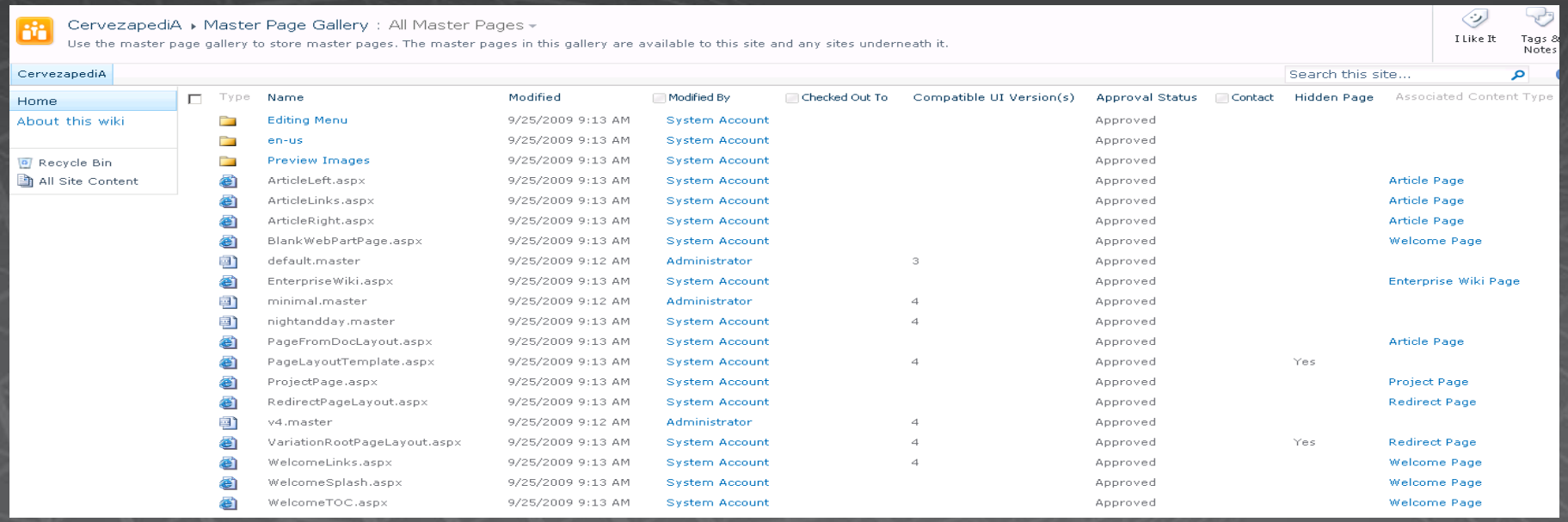
Branding

- Same as in standard publishing site
  - Upload or create master page
  - Upload or create CSS file



Content types & Page Layouts

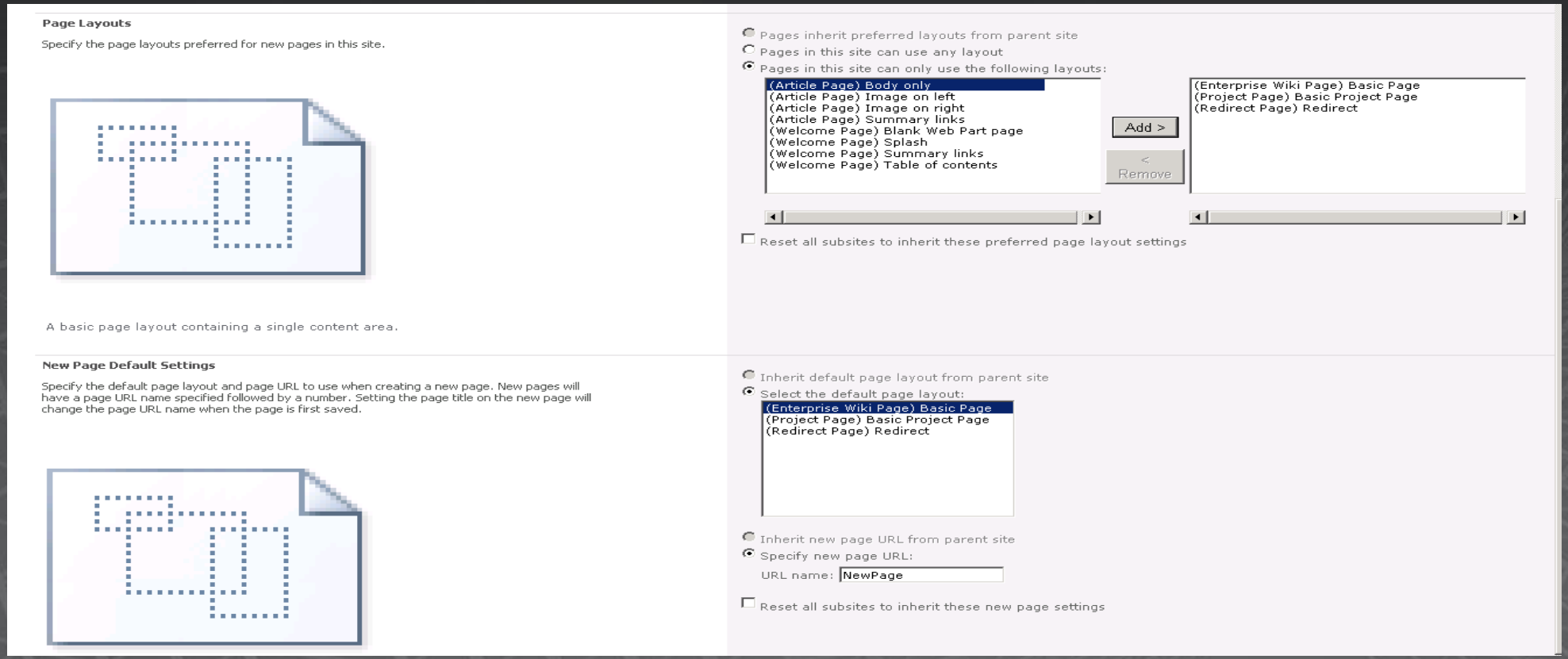
- Add new wiki page types
  - Add Enterprise Wiki page derived content type
  - Add one or more page layouts
  - Change default page layout



Type	Name	Modified	Modified By	Checked Out To	Compatible UI Version(s)	Approval Status	Contact	Hidden Page	Associated Content Type
	Editing Menu	9/25/2009 9:13 AM	System Account			Approved			
	en-us	9/25/2009 9:13 AM	System Account			Approved			
	Preview Images	9/25/2009 9:13 AM	System Account			Approved			
	ArticleLeft.aspx	9/25/2009 9:13 AM	System Account			Approved			Article Page
	ArticleLinks.aspx	9/25/2009 9:13 AM	System Account			Approved			Article Page
	ArticleRight.aspx	9/25/2009 9:13 AM	System Account			Approved			Article Page
	BlankWebPartPage.aspx	9/25/2009 9:13 AM	System Account			Approved			Welcome Page
	default.master	9/25/2009 9:12 AM	Administrator		3	Approved			
	EnterpriseWiki.aspx	9/25/2009 9:13 AM	System Account			Approved			Enterprise Wiki Page
	minimal.master	9/25/2009 9:12 AM	Administrator		4	Approved			
	nightandday.master	9/25/2009 9:13 AM	System Account		4	Approved			
	PageFromDocLayout.aspx	9/25/2009 9:13 AM	System Account			Approved			Article Page
	PageLayoutTemplate.aspx	9/25/2009 9:13 AM	System Account		4	Approved		Yes	
	ProjectPage.aspx	9/25/2009 9:13 AM	System Account			Approved			Project Page
	RedirectPageLayout.aspx	9/25/2009 9:13 AM	System Account			Approved			Redirect Page
	v4.master	9/25/2009 9:12 AM	Administrator		4	Approved			
	VariationRootPageLayout.aspx	9/25/2009 9:13 AM	System Account		4	Approved		Yes	Redirect Page
	WelcomeLinks.aspx	9/25/2009 9:13 AM	System Account		4	Approved			Welcome Page
	WelcomeSplash.aspx	9/25/2009 9:13 AM	System Account			Approved			Welcome Page
	WelcomeTOC.aspx	9/25/2009 9:13 AM	System Account			Approved			Welcome Page

Configuring Page Layouts

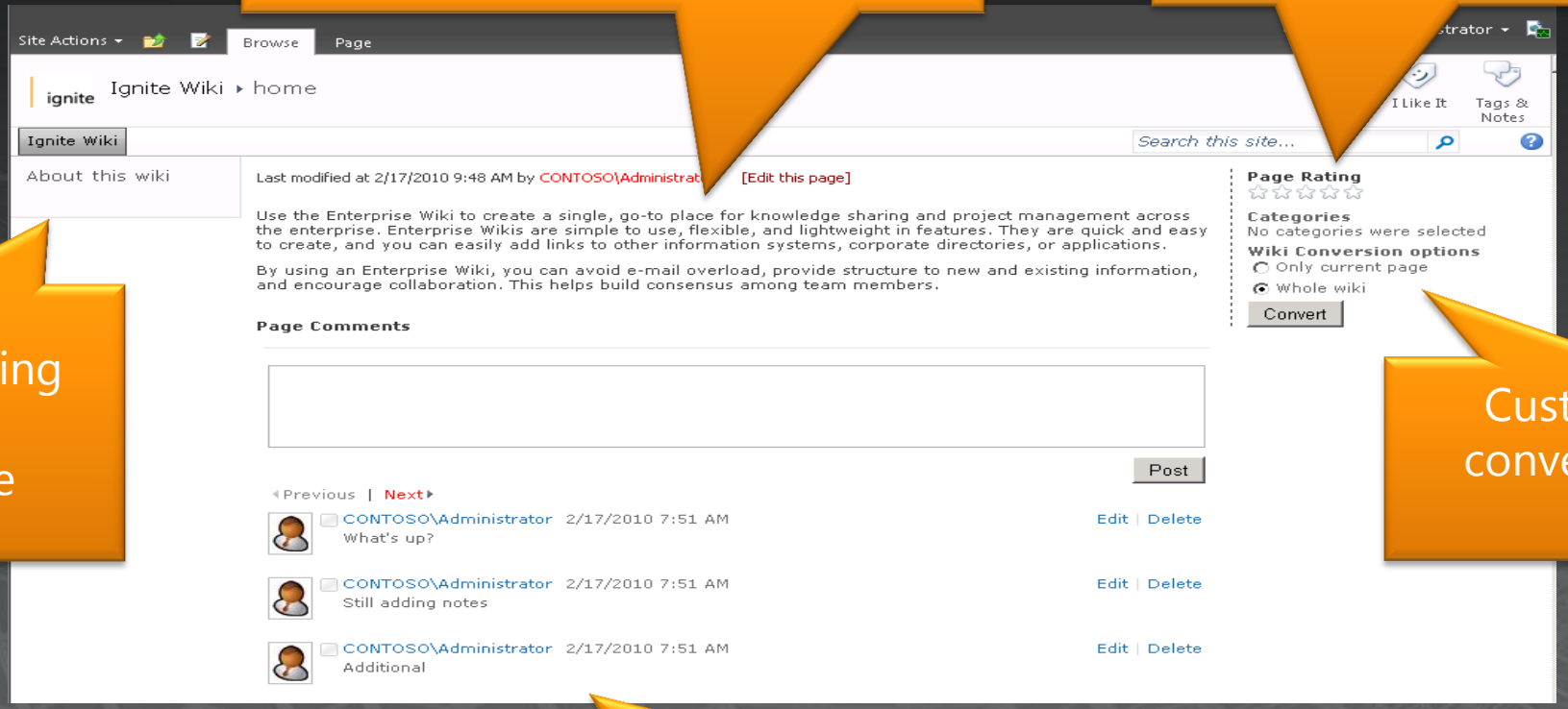
- Site settings - Page Layout and Site Template Settings



Example customizations

Actual wiki content using ribbon editing tools

OOB rating and categories



Layouts, branding and themes customizable

Custom control to convert wiki to docx format

OOB note board web part added to page layout

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Activity Feeds

- Extensible Enterprise Activity Feed
  - Web part
  - Atom 2.0 feed
- Two types
  - Consolidated – activities from everything I track
    - http://<mysitehost>/_layouts/activityfeed.aspx?consolidated=true
  - Published – my activities
    - http://<mysitehost>/_layouts/activityfeed.aspx?publisher=<accountname>
- Architecture
- Extensibility

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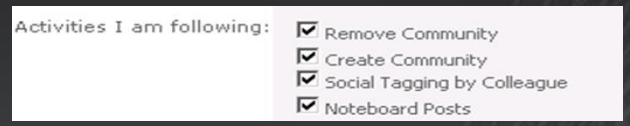
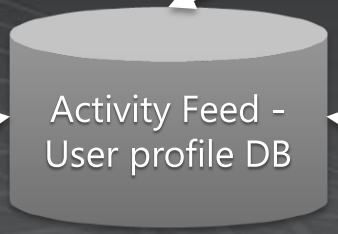
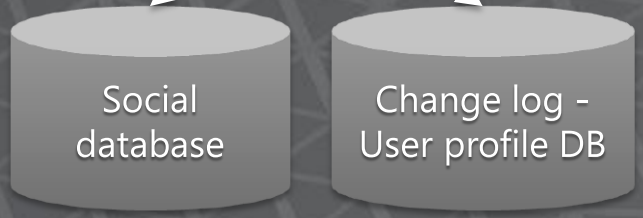
Activity feed architecture

User actions in Sharepoint or any other application can be collected to activity feeds and published to colleagues

User feeds depends on interests defined in the profile page – Custom applications and types shown here as options







Custom gatherer has to have sufficient access rights to user profiles

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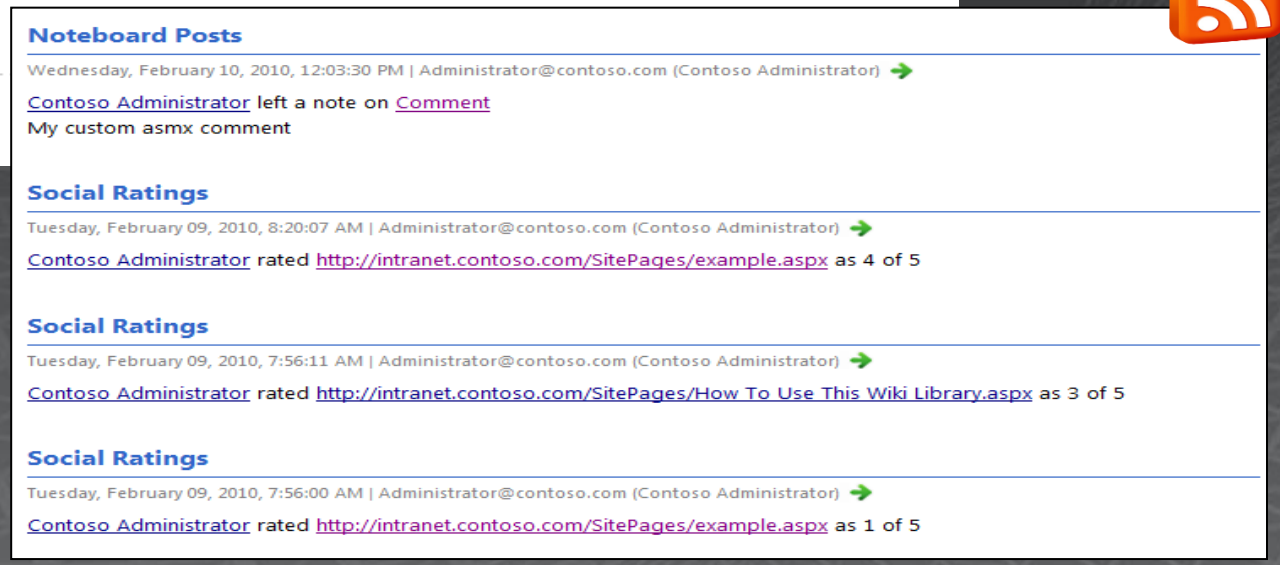
Activity Feeds



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Tag Cloud Customization

- Tag could web part can be customized by inheriting it
  - Microsoft.SharePoint.Portal.WebControls.TagCloudWebPart
- You can define the actual tag information to be shown based on your requirements
- Provides flexibility on tag information to be shown

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Social Code Managers

- New managers available for easy extending of the social functionalities
  - SocialCommentManager
  - SocialRatingManager
  - SocialTagManager

- Located in Microsoft.Office.Server.SocialData namespace
- You can easily use the APIs to for example create custom rating controls etc.

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User profile service

- Provides a interface for remote clients to read, manipulate and create user profiles
- Location
  - http://<server>/_vti_bin/UserProfileService.asmx
- Example usage
  - Manage colleques based on association in Facebook or in LinkedIn
  - Update profile properties based on extranal application

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Calling user profile service

```
private void button3_Click(object sender, RoutedEventArgs e)
{
    //Set the end point information
    BasicHttpBinding bind = new BasicHttpBinding();
    EndpointAddress endpoint =
        new EndpointAddress("http://intranet.contoso.com/_vti_bin/userprofileservice.asmx");
    UserProfileService.UserProfileServiceSoapClient upaClnt =
                        new UserProfileService.UserProfileServiceSoapClient(bind, endpoint);

    //Associate event handler and execute the call async
    upaClnt.GetUserColleaguesCompleted +=
        new EventHandler<UserProfileService.GetUserColleaguesCompletedEventArgs>
                                            (upaClnt_GetUserColleaguesCompleted);
    upaClnt.GetUserColleaguesAsync("Contoso\\Administrator");
}

void  upaClnt_GetUserColleaguesCompleted(object sender,
                                    UserProfileService.GetUserColleaguesCompletedEventArgs e)
{
    //Called async when done
    foreach (UserProfileService.ContactData item in e.Result)
    {
        //Do whatever you like
    }
}
```

Social data service

- Provide methods to create and manipulate social elements
  - Notes, tags and ratings
- Location
  - http://*Site*/_vti_bin/SocialDataService.asmx
- Example usage
  - Generate comment information remotely from office clients to particular document

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User profile change service

- Get information concerning user profile changes
- Location
  - http://*Site*/_vti_bin/UserProfileChangeService.asmx
- Example
  - Update external systems based on profile information updates in SharePoint

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User Profile Change

```
private void button2_Click(object sender, RoutedEventArgs e)
{
    BasicHttpBinding bind = new BasicHttpBinding();
    EndpointAddress endpoint =
        new EndpointAddress("http://intranet.contoso.com/_vti_bin/UserProfileChangeService.asmx");
    UPChangeService.UserProfileChangeServiceSoapClient UPCSClient =
        new UPChangeService.UserProfileChangeServiceSoapClient(bind, endpoint);


    UPCSClient.GetUserAllChangesCompleted += new EventHandler<
            UPChangeService.GetUserAllChangesCompletedEventArgs>(UPCSClient_GetUserAllChangesCompleted);
    UPCSClient.GetUserAllChangesAsync("Contoso\\administrator");
}

void UPCSClient_GetUserAllChangesCompleted(object sender,
                                           UPChangeService.GetUserAllChangesCompletedEventArgs e)
{
    foreach (UPChangeService.UserProfileChangeData item in e.Result.Changes)
    {
        //What ever you like
    }
}
```